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ARMY
METEOROLOGICAL REGISTER,
FOR TWELVE YEARS,
FROM 1843 TO 1854, INCLUSIVE,

COMPILED FROM OBSERVATIONS MADE BY

THE OFFICERS OF THE MEDICAL DEPARTMENT OF THE ARMY,

AT THE

MILITARY POSTS OF THE UNITED STATES.

PREPARED UNDER THE DIRECTION OF
BREVET BRIGADIER GENERAL THOMAS LAWSON,
SURGEON GENERAL UNITED STATES ARMY.

Published by authority of Hon. Jefferson Davis, Secretary of War.

WASHINGTON:
A. O. P. NICHOLSON, PUBLIC PRINTER.
1855.

SURGEON GENERAL'S OFFICE,
October 15, 1855.

Bvt. Brig. Gen. Thomas Lawson,
Surgeon General U. S. Army.

SIR: The volume which I have now the honor to submit, has been prepared in accordance with your general instructions, given at the time you were pleased to intrust me with the immediate charge of that portion of the business of this office which relates to meteorology, and to the statistics of sickness and mortality in the army.

The meteorological records of this bureau prior to 1842 having already been published, there remained for examination those only which had accumulated since January, 1843; at which time the new and improved system of observations went into operation. These proved so abundant that a division seemed necessary for the purposes of publication, and it was determined to confine the present work to the observations of the thermometer, direction and force of winds, clearness of sky, and fall of rain and snow. To these were subsequently added a series of consolidated temperature and rain tables; the former representing the results of all the records of thermometrical observations since 1822, and the latter exhibiting all measurements of rain since 1836.

In addition to the labor involved in the construction of the series of consolidated temperature and rain tables, and the investigations necessary for determining the precise geographical position and altitude above the sea of the several stations, the preparation of this work has required the careful and minute examination and computation of over eight thousand monthly registers, containing in the aggregate nearly four millions of observations. In the monthly tables, each line represents the results of 480 observations, exclusive of those on the fall of rain and snow; and gives, in addition thereto, the range of the thermometer, the number of fair and cloudy days, and days of rain and snow.

The *means* of observations of the thermometer, as given in this Register, have been deduced from the four daily observations, instead of the two at sunrise and 3 P. M., as originally directed by the department; it having been satisfactorily shown by the data in this office, that the result thus obtained more nearly approximated the true daily mean as determined by hourly observations.

The thermometers used by the medical officers during the last twelve years, were made to order by Mr. George Tagliabue, philosophical instrument maker, New York, after standard No. 6 of the National Observatory, with which they were compared at four points, viz: 32°, 52°, 72°, and 92°. In examining the consolidated temperature tables, the fact that previous to 1843 the thermometers furnished were not so uniformly or carefully constructed, should be considered.

The formula adopted for expressing the "number of observations and sum of force of winds," and "mean clearness of sky," are explained in the "directions for taking meteorological observations," as given in the introduction to this volume. The number of days fair and cloudy have been determined from the original daily observations; those in which the aggregate of the four daily observations as expressed in figures exceeded 20, being recorded as fair, and those less than that number, as cloudy. The number of days on which it rained or snowed are recorded separately.

No effort has been spared to make the work as free from error as possible. The arrangement of the stations in geographical districts having similar climatological features has facilitated the detection of erroneous computations. The annual summaries served to prove the correctness of the monthly tables; and the consolidated tables afforded a third point of comparison, so far as regards the temperature and rain observations. All observations have been given as originally recorded; but in cases where there were good reasons for doubting their accuracy, the doubt has been expressed.

The general arrangement of the tables, and the grouping of the stations in climatological districts, were adopted principally at the suggestion of LORIN BLODGET, ESQ., who has been associated with me in the preparation of the entire work. The isothermal and rain charts were designed and prepared exclusively by him, and he is entitled to whatever of scientific value may attach to them, and to the accompanying report explanatory of the principles upon which they were constructed, and of the results which they exhibit.

The map which serves as a basis for these charts has been most carefully drawn, under my direction. Its coast outline was determined by reference to the latest published charts of the United States Coast Survey; the topography of the interior, west of the Mississippi river, is given from the reports and maps of recent explorations for a route for a railroad to the Pacific; and all the military posts at which observations have been taken, are located with great exactness.

In conclusion, I beg permission to state that I have shared in the laborious computations of this work, to the fullest extent which my more imperative duties to the sick would permit; and that every portion thereof has received my careful examination and supervision.

Very respectfully, your most obedient servant,

RICHARD H. COOLIDGE,

Assistant Surgeon

U. S. Army.

INTRODUCTION.

Previous to the year 1818 we possess no records of meteorological observations taken in the United States on an extensive scale. In that year Congress, acting upon the recommendation of the Hon. John C. Calhoun, then Secretary of War, created the office of Surgeon General of the Army, to which Hospital Surgeon Joseph Lovell was immediately appointed. The Medical Department was not, however, fully organized upon its present basis until the year 1821.

Soon after his appointment, Surgeon General Lovell submitted to the Secretary of War for approval, a system of regulations for the government of the Medical Department. Therein, among other duties, the surgeon was required "to keep a diary of the weather, and to note everything of importance relating to the medical topography of his station, the climate, diseases prevalent in the vicinity," &c., and transmit it quarterly to the Medical Bureau at Washington. The earliest registers thus forwarded and on file in the Surgeon General's Office are dated January, 1819.

Thus did the Medical Department, at its very origin as a distinct branch of the staff of the army, enter upon a system of meteorological observations, in which it has since been followed by the States of New York, Pennsylvania, and Ohio, and also by the Smithsonian Institution. New York commenced in 1825, Pennsylvania in 1836, Ohio in 1842, and the Smithsonian Institution in 1849.

The only instruments used at first were a thermometer and vane; and the observations were confined to the temperature of the air and the course of the winds, with general notices of the weather. The thermometer was noted at 7 A. M., 2 P. M., and 9 P. M., and the winds and weather were observed morning, noon, and evening. Early in the year 1836 a rain gauge was furnished to each post, and the daily fall of rain recorded in the register. No change was made in the hours of observation until January, 1841, when "sunrise" was substituted for 7 A. M.; and in 1842 the number of daily observations were increased to four, and the hours adopted were "sunrise, 2 P. M., sunset, and 9 P. M."

The results of the observations for 1820 and 1821 were published at the end of each year. Those of subsequent observations have been published in a series of army meteorological registers, of which the first volume, embracing the years from 1822 to 1825, inclusive, was issued by Surgeon General Lovell in 1826. The second and third volumes of the series, comprising respectively the years from 1826 to 1830, and from 1831 to 1842, inclusive, were prepared and published, the former in 1840, and the latter in 1851, under the direction of the present Surgeon General, Doctor Thomas Lawson, who succeeded to that office upon the death of Doctor Lovell, in October, 1836.

Prompted by a desire to make the labors of the medical officers in the field of meteorology more practically useful, in elucidating and defining the relations of atmospheric vicissitudes and phenomena in the causation and development of disease; and at the same time to render them available for the purposes of science in general; the Surgeon General in 1840 and 1841 applied to Congress for an appropriation to enable him to extend the system, and render it more complete. With the funds appropriated for this purpose, a number of barometers and hygrometers were imported from Europe, and distributed to certain selected stations for experiment.

In May, 1842, the Army Medical Board, then in session at Philadelphia, was instructed to prepare practical directions for taking meteorological observations in an extended form. "The Board, consisting of Surgeons Thomas G. Mower and Henry A. Stinnecke, and Assistant Surgeon John M. Cuyler, diligently sought information from all authentic sources within their reach, and at length drew up a set of directions, which were submitted for the approval of the Surgeon General, and Secretary of War, and finally adopted for the government of the medical officers in their meteorological observations. In preparing these directions the Board received valuable aid from Professor A. D. Bache, Professor Bartlett, of the United States Military Academy, J. P. Espy, Esq., and from the instructions of the Regents of the University of New York, of the Franklin Institute, at Philadelphia, and of the Royal Society, London."

The system thus extended, went into operation on the first day of January, 1843. It embraced four observations daily of the barometer, attached thermometer, thermometer detached, clearness of the sky, direction and force of the wind, and the direction and velocity of the clouds. To these were added two daily observations on the wet-bulb thermometer, and the measurement of rain and snow. Hourly observations of the barometer, thermometer, &c., were also directed to be taken for twenty-four hours at the equinoxes and solstices.

The following "directions," drawn up by the Board and adopted by the Department, were published for the use of the officers of the medical staff, who were required to obey them in all respects with the utmost strictness and regularity, and were held officially responsible for the accuracy of their observations.

DIRECTIONS FOR TAKING METEOROLOGICAL OBSERVATIONS.

Observations of the barometer, with its attached thermometer, of the thermometer, (detached,) the clearness of the sky, the direction and force of the wind, and the direction and velocity of the clouds, will be made at a little before sunrise, 9 A. M., 3 P. M., and 9 P. M.

Observations of the wet-bulb thermometer are to be taken at a little before sunrise, and at 3 P. M.

At every fall of rain, snow, hail, or sleet, the time of its commencement and end will be recorded, and the quantity which fell, as indicated by the rain-gauge.

Each of the above observations will be registered, as soon as made, in its appropriate column. Should, however, an observation be from necessity omitted at any of the regular periods, it is enjoined that a blank be left on the register in the place where the omitted observation should have been recorded.

The "*daily mean*" of the thermometer (detached) is to be found by adding together the observations at sunrise and 3 P. M., and halving the sum.

At the end of the month add up each column of figures on the register, under the heads of "*barometer*," "*thermometer attached*," "*thermometer detached*," "*clearness of the sky*," and "*wet-bulb*," and divide the sum by the number of days on which observations were made. The *quotient* will be placed at the foot of each column, upon the line marked "*monthly mean.*"

The "*quantity of rain*" will also be added up, and the *sum* placed at the foot of the proper column.

In all entries on the register, *fractions* will be expressed in *decimals*.

BAROMETER.

The instrument adopted by the Department is the syphon barometer of Bunten.*

THERMOMETER (DETACHED.)

The thermometer will be placed in a situation having a free circulation of air, not exposed to the direct or reflected rays of the sun, and sheltered from rain. Its situation should be remote from massy walls, which slowly imbibe or part with caloric. In making observations avoid breathing on the instrument, or touching it; and at night manage your lamp so as not to cause a rise of the mercury by its heat.

CLEARNESS OF THE SKY.

The amount of clear sky, at the hours of observation, will be designated by the figures 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10; 0 signifying no clear sky; 1, a very small portion of clear sky; and so on to 10, which indicates the entire absence of clouds, or haze.

WIND.

The direction and estimated force of the wind will be registered together.

The direction will be expressed, as is customary, by the letters which denote the points of the compass, as W., S.W., S.S.W., &c. The force of the wind will be expressed by figures from 0 to 10, thus:

0 will signify a calm;
1 " " a barely perceptible breeze;
2 " " a gentle breeze;
3 " " a moderate breeze;
4 " " a brisk breeze;
5 " " a strong wind;
6 " " a very strong wind;
7 " " a storm;
8 " " a great storm;
9 " " a hurricane;
10 " " a violent hurricane.

For example:—should the wind blow a brisk breeze from W.S.W., the expression in the register would be W.S.W. 4.

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* The somewhat lengthy and minute directions respecting the barometer and attached thermometer are omitted, as they have no direct connection with this volume.

CLOUDS.

As several strata or currents of clouds often exist at different heights, the direction and velocity of motion of the *lowest stratum only* will be registered under the head of clouds, using the same expressions as in registering the wind. Thus, should the clouds move briskly from the S.W., the expression would be S.W. 4, the letters denoting the direction, and the figure the velocity of the motion.

WET-BULB.

The hygrometric condition of the atmosphere may be indirectly determined by ascertaining the degree of refrigeration produced by the evaporation of water in the open air. The most easy method of finding this is to wet the bulb of a thermometer covered round with fine gauze, and swing the instrument in the open air, in the shade, until the mercury sinks as low as it will.

The current of air upon the wet-bulb should be kept up (by swinging) as long as the mercury continues to descend in the tube of the instrument, and for a few minutes after it becomes stationary, in order to insure the full effect of the evaporation, and the lowest degree to which the mercury can be forced to descend by this process, will constitute the observation required, and, as such, it will be recorded on the Register, in the column headed "Wet-Bulb."

The water used to wet the bulb of the Thermometer should be as nearly as possible at the same temperature as the air, at the time of taking the observation. It should not be poured upon the bulb of the thermometer, but applied with a bit of sponge, a fine brush, or any similar substance, and when the temperature is near, or below the freezing point, care should be taken simply to *moisten* the gauze.

RAIN.

The instrument used to measure the quantity of rain which falls is the conical rain gauge.

It will be kept remote from all elevated structures, at a distance at least equal to their height, and still further off, where it can be conveniently done. It is to be suspended in a circular opening made in a board, which is to be fixed to a post, eight feet from the ground; the opening to be five inches in diameter, and bevelled so as to fit the side of the gauge, into which the cap is to be fixed, base downwards, to prevent evaporation. The measurement is made by putting down perpendicularly to the bottom of the gauge the measuring stick, and applying it, from its point to the water mark, on the scale, which will express the quantity in inches, or their decimals. The graduation of the scale is by hundredths of an inch for the first three tenths of an inch, and above that by tenths and half tenths. Parts of degrees will be measured by the eye, and set down in decimals. If a rain continue for any length of time, the quantity in the gauge will be measured at suitable intervals, before the water rises high in it, and the measurements summed up at the close.

In freezing weather, when the rain gauge cannot be used out of doors, it will be taken into the room, and a tin vessel will be substituted for receiving the snow, rain, or sleet, that may then fall. This vessel must have its opening exactly equal to that of the rain gauge, and widen downwards to a sufficient depth with a considerable slope. It should be placed where nothing can obstruct the descending snow from entering, and where no drift snow can be blown into it. During a continued snow storm, the snow may be occasionally pressed down. The contents of the vessel must be melted by placing it near the fire, with a cover to prevent evaporation, and the water produced poured into the gauge to ascertain its quantity, which must then be entered on the register.

REMARKS.

Under this head may be noted all remarkable phenomena, especially sudden and simultaneous* changes of wind and temperature; their effect on the barometer; the moment of greatest depression of the barometer in the passage of storms; currents of clouds moving in different directions, and at different heights; the rise and fall of rivers and lakes; remarkable tides; the opening and closing of navigable waters; the last killing frost that occurs in spring, and the first in autumn, as shown by their effects on the tender buds, leaves, and germs of fruit trees, &c.; the commencement and progress of vegetation; the first appearance and departure of birds of passage; thunder storms, near or remote; silent lightning, with its direction and elevation above the horizon; falls of hail, snow, and sleet; fogs; white or hoar frost, &c.

Always examine the heavens at the latest observation, whether there be any Aurora, or shooting stars; and especially about the 10th of August, and 12th and 13th of November, see whether there be any great number of luminous meteors visible, stating the number observed in an hour, or at least in a quarter of an hour. In case of great fires occurring in clear, calm, dry weather, with a high dew point, observe whether clouds form over the fire, and describe the phenomena.

SPECIAL OBSERVATIONS.

Hourly observations of the barometer will be taken for 24 hours, at the equinoxes and solstices, to correspond with those already instituted at numerous points of Europe and America, at the suggestion of Sir John Herschel. The days fixed upon for these observations are the 21st of March, June, September, and December. But should any one of these 21st days fall on Sunday, then the observations will be deferred till the next day, the 22d.

The observations at each station will commence at 6 o'clock A. M. of the appointed days, and be continued at the beginning of each hour till 6 A. M. of the following days, care being taken to obtain the correct time.

The exact maximum and minimum of temperature of the 24 hours should be recorded, under the head of "Remarks," at the precise hour and minute at which they occur.

The value of these hourly observations will be greatly enhanced, if they be extended to all the objects embraced in the daily register. If there be a storm about those times, hourly observations of all the phenomena, from the beginning to the end of the storm, will also be valuable.

All special observations will be recorded separately.

Connected with meteorology are many interesting subjects of inquiry, which can only be elucidated by wide-spread, simultaneous observations. The medical officers of the army are therefore confidently invited to co-operate in the collection of data tending to advance the interests of science. For the accuracy of our observations, (quoted as they will be both at home and abroad,) it is hardly necessary to say, the reputation of the department is pledged.

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* All atmospheric vicissitudes which seem to affect invalids unfavorably or otherwise, and the supposed agency of climate in the causation and cure of disease, will be noticed in the Quarterly Report of Sick. (Form 8.)

The army system of meteorological observations was intended to be primarily subservient to the advancement of medical science, and secondarily to that of meteorology as a distinct branch of physics. The relations of atmospheric phenomena to disease have been to some extent considered in a "Statistical Report on the Sickness and Mortality in the Army of the United States," prepared under the direction of the Surgeon General, and published in 1840; and it is proposed still further to discuss those relations in a similar report now in course of preparation. The Department has heretofore, however, made no attempt to deduce general scientific results from the mass of material it has accumulated. Its position in regard to the science of meteorology was that of a collector of facts carefully observed, and the results of the labors of the medical officers have been from time to time given to the public, in the hope that, in the hands of those who were specially devoted to such investigations, they would aid in establishing or refuting some of the interesting theories of this science, and, taken in connection with other data, perhaps lead to the discovery of definite laws.

Within a few years past some portions of the army records have been used in connection with certain scientific inquiries and investigations; but no effort has been made to deduce therefrom general results. It was to such results that the medical officers looked forward as the reward of their labors. For thirty-six years they had patiently observed and recorded facts in meteorology. In that time the army stations had gradually extended from the Atlantic to the Pacific coast, and from the 47th parallel of north latitude, to the banks of the Rio Grande. The establishment of a new military post and the commencement of observations thereat, were almost uniformly simultaneous; and the number of registers forwarded from the cities of Mexico during their temporary occupation by the troops of the United States attest that the excitements of war were not sufficient to render the medical officers forgetful of the interests of this science.

The present volume, the fourth in the series of registers issued from the Surgeon General's Office, has been prepared with a view to meet, in part at least, these just expectations. It contains the results of the observations of the thermometer, direction and force of winds, clearness of sky, and fall of rain and snow, during a period of twelve years—from the first day of January, 1843, to January, 1855—arranged in monthly tables and annual summaries. To these have been added consolidated temperature and rain tables for each separate station, comprising the results of all the thermometric observations made by medical officers since 1822, and of all measurements of rain and snow since the introduction of the rain gauge in 1836.

The geographical position and altitude above the sea of each station, as given in this volume, have been determined with great exactness. This, together with the brief topographical description of each military post, materially enhances the value of the work as a book of reference.

The feature which distinguishes this register from its predecessors, is the charts of distribution of temperature and of rain with which it is illustrated, and which have been prepared exclusively from data in the Surgeon General's Office. The principles upon which these charts have been constructed, and the general results they are intended to exhibit, are fully explained in the accompanying report.

It was intended to give the observations on the "direction and velocity of the clouds" in this edition, but finding that they could not be included without a material modification of the tables, and a great increase in the size of the book, the idea was reluctantly abandoned.

The system of "wet bulb" observations adopted in 1843, with the view of ascertaining the relative humidity of the air, was discontinued in 1849, having failed to give satisfactory results.

The directions were, to wet the gauze-covered bulb of a thermometer, and to "swing the instrument in the open air in the shade until the mercury sinks as low as it will." The time required to ensure the full effect of evaporation by this process varies from ten minutes to half an hour, according to the temperature of the air. The instrument was, therefore, not adapted to the military service, the time required for a single observation being more than the medical officers could always command. To supply this deficiency the Department is now distributing to the military stations a hygrometer, consisting essentially of a thermometer, the bulb of which is covered with floss silk, enclosed in a piece of thin muslin, the ends of the silk sufficiently long to dip into water contained in a brass reservoir secured immediately below the bulb. In the top of this reservoir is a small opening to admit the silk, and to the front is attached a cylinder communicating with the interior by a small hole. This instrument can be observed with the same ease as an ordinary thermometer, the directions being to keep the reservoir supplied with rain or distilled water, and in freezing weather, when the bulb is not wet by capillary absoption, to moisten the gauze about fifteen or twenty minutes before the time for making the observation.

Observations on the barometer and attached thermometer have been made at fifty-one stations for various periods during the last twelve years; these, together with the "hourly observations" at the equinoxes and solstices, remain on file in the Medical Bureau, and will afford ample material for another volume.

R. H. C.

METEOROLOGICAL REGISTER.

MONTH OF JANUARY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	11.74	17.25	27.83	18.12	19.21	46	—36	26.79	55.21	26	54	1	1	9	15
Fort Fairfield	13.19	20.06	26.61	18.35	19.90	48	—28	28.10	47.90	2	6	0	0	0	0
Hancock Barracks	17.90	19.74	29.58	22.55	22.44	49	—16	26.56	33.44	22	50	13	19	17	30
Fort Sullivan	25.09	29.45	33.12	28.74	29.07	48	— 6	18.93	35.07	6	18	2	10	0	0
Fort Preble	25.82	27.40	31.30	28.64	29.06	45	— 5	15.94	34.06	27	69	14	42	3	5
Fort Constitution	27.12	28.79	35.40	30.70	31.27	49	3	17.73	28.30	14	26	17	31	8	8
Watertown Arsenal	25.51	30.41	37.87	31.09	31.69	55	0	23.31	31.69	5	5	10	10	9	9
Fort Adams	31.80	35.38	37.00	34.67	34.40	50	14	15.60	20.40	20	68	7	18	9	28
Fort Trumbull	26.93	29.32	38.19	30.61	32.59	55	0	22.41	32.59	19	29	29	42	3	15
Fort Columbus	34.16	35.40	38.77	36.80	36.47	52	12	15.53	24.47	10	12	29	30	5	7
Fort Hamilton	34.22	35.14	41.22	26.24	37.27	59	12	21.73	25.27	9	29	23	51	12	19
West Point	29.80	31.90	37.13	32.86	33.40	53	8	19.60	25.40	18	58	4	4	1	2
Watervliet Arsenal	24.15	29.90	35.20	28.70	29.00	56	0	27.00	29.00	12	24	0	0	2	12
Plattsburg Barracks	22.22	27.35	30.67	25.03	26.45	56	—13	29.55	39.45	14	38	12	27	0	0
Madison Barracks	26.40	33.25	31.10	28.11	30.34	57	— 4	26.76	34.24	6	14	26	61	6	15
Fort Ontario	28.19	......	34.61	29.74	30.84	60	11	28.62	20.38	1	2	3	10	8	20
Fort Niagara	29.74	31.54	33.87	30.61	31.80	59	9	27.20	22.20	..	..	..	..	..	..
Buffalo Barracks	27.10	29.20	33.60	28.10	30.80	49	8	18.20	22.80	15	18	17	35	9	13
Alleghany Arsenal	30.61	33.64	40.93	33.38	35.77	62	14	26.23	21.77	17	23	20	23	6	6
Carlisle Barracks	27.58	35.06	39.90	32.61	33.74	66	3	32.26	30.74	17	..	6	..	41	..
Fort Mifflin	33.70	38.06	44.76	37.00	39.01	62	10	23.00	29.01	4	4	22	22	5	10
Fort McHenry	32.15	41.11	44.64	37.50	38.39	60	10	21.61	28.39	3	6	22	25	7	9
Fort Monroe	40.70	44.40	48.50	42.19	44.12	67	24	22.88	20.12	2	6	29	45	11	16
Fort Macon	48.07	51.09	54.08	50.01	51.07	63	34	11.93	14.07	3	10	28	88	4	10
Fort Johnson	47.00	50.00	59.00	52.00	52.00	72	27	19.00	26.00	20	..	8	..	28	..
Augusta Arsenal	43.87	48.51	58.90	48.90	50.90	74	22	23.10	28.90	16	31	15	28	0	0
Fort Moultrie	49.00	50.61	58.35	53.09	53.67	72	34	18.33	19.67	2	6	14	54	34	105
Oglethorpe Barracks	49.61	52.93	65.48	55.80	57.20	80	30	22.80	27.20	7	10	14	35	15	33
Fort Marion	50.00	59.07	63.07	55.02	58.50	77	30	18.50	40.50	14	17	34	49	4	4
Fort Shannon	49.12	56.74	68.83	57.41	58.97	86	28	27.03	30.97	15	14	17	16	4	3
Fort Brooke	52.87	63.84	69.74	58.84	62.30	81	31	18.70	31.30	32	69	19	44	17	34
Fort King	45.14	56.94	67.35	52.09	56.49	79	23	12.51	33.49	24	48	19	26	10	14
Fort Fanning	44.00	57.59	69.43	50.29	56.71	79	23	22.29	23.71	1	1	52	69	2	4
Fort Stansbury	43.23	58.20	64.12	52.50	53.66	78	32	24.33	21.67	46	117	18	40	5	15
Camp Barrancas	51.83	58.06	60.67	55.67	56.25	73	34	16.75	26.25	7	23	22	81	7	34
Fort Morgan	52.28	53.93	57.45	55.45	54.86	68	36	13.14	18.86	24	60	11	23	19	58
Mount Vernon Arsenal	45.00	48.60	60.00	49.50	52.50	72	26	19.50	26.50	11	20	23	34	1	1
Fort Pike	47.20	50.71	57.75	51.42	52.47	72	29	19.53	23.47	6	28	23	69	34	92
Fort Wood	48.08	53.27	61.48	52.29	54.58	76	32	21.42	22.58	25	61	13	32	32	74
New Orleans	49.42	53.80	61.45	53.78	55.43	74	29	18.57	26.43	5	13	25	46	7	16
Baton Rouge	47.74	55.51	62.42	55.13	55.08	79	28	23.92	25.08	32	..	0	..	20	..
Fort Jesup	48.25	49.39	60.26	53.62	54.25	78	20	23.75	34.25	29	30	6	10	0	0
Fort Towson	41.16	44.90	57.65	47.93	49.40	76	18	26.60	31.40	12	21	30	56	20	48
Fort Washita	41.10	46.20	53.90	47.60	47.50	74	14	26.50	33.50	13	47	11	14	3	8
Fort Smith	33.10	39.12	50.30	39.05	41.70	72	2	30.30	39.70	0	0	30	66	7	11
Fort Gibson	37.50	41.30	50.80	41.30	43.30	78	4	34.70	39.30	18	59	14	19	0	0
Fort Scott	30.49	39.70	43.74	33.03	37.11	63	14	25.89	23.11	6	9	3	4	8	19

MONTH OF JANUARY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		'Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	16	25	44	6	10	24	96	25	75	1.96	3.09	3.22	1.93	2.55	6	25	1	8	....	
1	2	27	81	50	109	21	60	23	69	4.80	4.16	3.90	4.87	4.43	13	18	3	12	....	
16	33	15	33	10	27	11	27	10	32	4.00	4.20	3.00	4.22	3.83	12	19	6	5	2.02	
15	65	28	69	8	29	17	84	47	189	2.90	3.80	3.70	4.00	3.60	11	20	4	6	2.15	
3	6	20	47	23	53	15	46	7	22	3.75	3.28	3.28	3.35	3.41	9	22	2	7	1.87	
2	6	12	22	12	20	29	56	30	82	3.90	3.96	3.48	4.58	3.72	14	17	4	6	1.28	
4	14	2	2	36	62	19	25	36	70	7.05	5.78	5.66	7.83	6.58	13	18	2	6	1.96	
5	12	12	28	14	42	9	36	40	53	3.83	4.29	4.16	3.67	3.98	13	18	8	4	4.22	
4	5	3	9	14	28	20	43	26	66	3.64	4.25	3.80	4.93	4.15	13	18	10	4	2.05	
10	26	2	12	13	25	15	43	40	130	5.00	5.80	6.20	4.00	5.25	14	17	8	3	1.00	
3	4	24	34	17	38	17	60	14	72	4.27	4.19	4.25	5.08	4.94	12	19	4	1	0.70	
12	34	23	31	7	9	6	19	48	143	4.25	4.38	4.45	4.00	4.27	11	20	5	3	2.70	
6	25	25	64	7	20	41	137	29	42	4.03	4.30	4.55	4.60	4.37	13	18	..	5	1.90	
13	50	9	06	20	85	0	0	54	124	3.03	3.87	3.93	3.32	3.54	23	8	4	4	1.26	
15	51	14	32	15	44	9	21	30	97	2.00	2.11	2.19	2.20	2.12	5	26	4	7	2.35	
13	40	10	40	5	18	10	34	7	25	....	....	....	....	....	7	24	3	5	....	
..	..	..	..	..	..	..	..	..	..	0.38	1.32	2.22	1.25	1.29	5	26	7	6	5.61	
4	5	5	10	51	112	9	22	13	44	2.20	2.13	3.12	3.11	2.63	10	21	8	9	3.52	
0	0	2	8	7	18	13	40	35	137	3.90	4.58	4.83	6.06	4.84	14	17	5	3	2.70	
13	..	11	..	0	0	22	..	9	..	4.41	6.35	5.61	5.09	5.36	14	17	5	2	....	
16	34	1	4	28	49	18	36	31	61	5.93	6.90	6.06	6.55	6.23	21	10	5	2	1.98	
17	25	5	15	25	44	12	30	30	82	5.14	6.15	5.21	5.23	5.43	19	12	3	2	1.60	
20	31	3	5	24	30	17	38	17	44	4.15	4.27	5.20	6.26	4.97	15	16	6	0	0.51	
17	41	7	26	31	115	17	74	12	44	4.61	5.32	5.73	6.87	5.63	20	11	10	0	....	
4	..	36	..	0	0	24	..	4	..	8.13	8.12	8.10	8.10	8.11	23	8	4	0	....	
10	15	5	7	42	79	4	15	27	73	6.45	6.70	7.22	7.70	7.01	24	7	4	0	....	
2	5	34	105	11	32	49	144	4	9	5.83	6.16	7.19	7.35	6.63	22	9	5	0	2.07	
15	30	19	32	22	56	24	69	7	22	4.60	5.49	6.70	6.00	5.69	16	15	5	0	1.27	
5	8	5	9	12	18	25	37	20	29	4.08	5.07	5.08	7.02	5.31	20	11	6	0	....	
8	6	14	12	28	35	5	2	23	44	3.70	4.22	5.83	7.54	5.32	19	12	6	0	1.87	
3	4	11	18	13	31	10	23	12	22	6.29	7.19	7.61	8.09	7.29	23	8	5	0	3.37	
16	23	17	19	23	70	4	4	11	21	4.06	6.48	7.80	6.52	6.21	23	8	7	0	....	
11	15	0	0	26	47	0	0	31	45	3.74	6.00	5.59	7.94	5.82	19	12	5	0	....	
5	12	11	25	6	12	18	39	15	36	4.27	5.19	6.12	7.10	5.67	18	13	5	0	....	
21	66	8	16	15	48	6	20	33	120	5.60	6.90	5.90	6.00	6.10	21	10	8	0	2.54	
10	27	13	34	10	18	14	35	21	80	5.42	6.96	7.55	7.29	6.80	24	7	5	0	2.11	
31	63	0	0	17	20	0	0	37	60	7.30	7.29	6.70	7.60	7.22	23	8	6	0	3.81	
14	45	7	24	7	19	5	12	32	111	5.16	5.05	5.12	7.55	5.72	17	14	9	0	....	
10	27	12	20	7	22	16	21	9	31	3.55	4.09	4.23	6.00	4.99	13	18	8	0	....	
9	13	3	7	14	29	5	15	19	60	3.38	4.17	4.74	5.25	4.36	15	16	7	0	4.04	
12	..	32	..	20	..	0	..	12	..	8.38	8.38	8.06	8.06	8.22	20	11	4	0	2.06	
0	0	51	60	13	15	3	3	20	25	3.54	3.54	4.51	4.83	4.10	13	18	7	0	2.20	Therm. protected.
20	58	9	19	4	5	2	7	23	83	4.77	5.33	6.10	5.00	5.30	18	13	10	0	2.78	
21	65	0	0	49	54	2	4	19	39	4.50	4.90	5.40	5.70	5.12	18	13	6	0	....	
22	62	4	10	15	29	13	36	12	65	4.58	5.32	5.00	5.87	5.19	17	14	6	2	1.51	
30	66	41	102	8	9	9	19	6	17	6.40	6.60	6.30	5.80	6.27	21	10	3	3	7.40	
10	25	12	41	10	27	4	9	17	66	4.05	4.20	3.50	4.20	3.98	17	14	5	2	4.98	

MONTH OF JANUARY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Jefferson Barracks.....	30.74	35.74	43.54	35.19	36.16	69	1	32.84	35.16	2	3	3	3	8	9
St. Louis Arsenal......	......	......	......	......	......	....	....	......	......	7	16	4	16	16	41
Dearbornville Arsenal..	24.20	27.27	35.90	26.23	30.05	58	1	27.95	29.05	1	2	10	17	18	31
Detroit Barracks.......	26.22	28.90	38.48	28.74	30.48	55	6	24.52	24.48	15	18	17	32	1	2
Fort Gratiot...........	26.10	30.11	33.30	28.15	29.18	56	2	26.62	31.18	11	34	7	14	2	4
Fort Mackinac..........	23.19	25.74	27.09	25.61	25.40	39	2	13.60	23.40	9	19	9	21	14	40
Fort Brady.............	18.50	19.80	25.13	21.00	21.81	40	—11	18.19	32.81	17	52	8	18	20	58
Fort Winnebago.......	16.41	19.74	27.64	20.83	22.03	46	—22	23.97	44.03	6	7	4	6	15	30
Fort Atkinson.........	15.77	21.51	26.58	19.38	21.17	49	—16	27.83	37.17	8	10	2	4	22	39
Fort Crawford.........	15.16	17.24	27.10	21.23	20.17	43	—20	22.83	40.17	7	8	0	0	1	1
Fort Snelling..........	16.52	19.60	25.90	20.70	20.70	42	—18	21.30	38.70	5	36	10	12	6	16
Fort Leavenworth......	24.70	26.64	33.93	28.35	28.96	58	—10	29.04	38.96	18	42	0	0	3	10
Fort Croghan..........	19.00	23.44	30.80	24.35	24.90	47	—14	12.10	38.90	22	82	3	4	6	7

MONTH OF JANUARY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
28	43	29	54	14	20	16	39	24	60	3.83	4.58	5.61	6.00	5.00	17	14	5	8	2.27	
19	54	19	63	19	82	23	80	15	64	3.00	4.00	3.00	3.00	3.25	9	22	2	4	1.94	
8	14	5	6	22	47	23	66	24	82	3.20	3.26	4.25	4.26	3.74	10	21	2	7	2.60	
10	22	9	33	36	87	24	71	13	32	2.52	2.90	3.28	4.87	3.38	8	23	2	9	1.91	
15	35	21	51	23	78	26	46	12	45	2.19	2.24	3.10	4.10	2.90	8	23	4	11	2.72	
17	52	7	24	9	20	29	10	25	69	0.53	1.93	3.12	2.64	2.05	8	23	5	10	....	
22	46	26	62	11	27	7	11	12	42	1.61	1.58	1.48	0.25	1.23	8	23	7	5	2.07	
19	29	22	33	11	17	16	40	19	80	3.13	3.70	4.09	3.25	3.54	14	17	2	9	0.72	
28	70	13	20	10	24	26	74	14	49	3.51	2.96	3.51	4.00	3.49	9	22	4	8	....	
26	54	15	15	28	34	2	5	44	101	3.20	4.60	3.25	3.20	3.58	9	22	5	8	0.70	
13	37	8	12	15	21	8	12	17	54	5 43	4.23	4.76	4.80	4.55	9	22	2	3	1.15	Last 21 days.
14	53	37	96	7	17	8	20	37	165	4.16	5.06	4.61	5.27	4.77	16	15	3	2	0.12	
16	32	15	24	23	42	9	13	11	43	2.58	2.61	3.29	5.40	3.47	12	19	5	3	1.80	

MONTH OF FEBRUARY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	— 1.96	7.32	19.03	7.64	8.53	41	—32	32.57	40.53	33	73	10	43	2	12
Fort Fairfield	2.32	10.96	18.03	7.75	10.17	44	—26	33.83	36.17	1	3	3	7	2	6
Hancock Barracks	4.75	8.28	20.71	10.53	12.72	42	—20.5	29.28	33.22	21	54	8	30	10	18
Fort Sullivan	14.64	20.28	26.96	19.03	20.30	59	— 6	38.70	26.30	10	42	8	50	4	10
Fort Constitution	15.64	17.94	25.20	19.50	20.40	42	2	21.60	18.40	8	9	14	58	1	1
Watertown Arsenal	12.67	18.89	26.42	14.50	19.55	38	— 9	18.45	28.55	6	17	6	18	4	9
Fort Adams	21.39	24.32	27.50	24.00	25.45	41	9	16.55	15.45	12	30	27	127	3	21
Fort Trumbull	14.14	19.28	25.46	17.89	19.97	41	— 8	21.03	28.97	11	30	20	72	2	8
Fort Columbus	23.33	25.36	28.14	28.60	25.66	38	9	12.34	16.66	5	11	26	51	3	3
Fort Hamilton	23.20	25.05	30.40	26.30	26.80	46	8	19.20	18.80	9	40	18	44	13	29
West Point	17.06	19.75	25.67	20.90	21.40	42	5	21.60	16.40	6	12	5	8	1	1
Watervliet Arsenal	7.80	14.10	22.80	13.75	15.30	38	—21	22.70	36.30	12	27	0	0	0	0
Plattsburg Barracks	8.07	14.32	19.50	10.89	13.78	36	—14	22.22	27.78	18	48	17	43	1	2
Madison Barracks	8.27	13.24	19.14	13.26	14.18	35	— 7	20.82	21.18	1	3	20	65	1	2
Fort Ontario	14.25	18.32	21.12	17.21	17.97	34	1	16.03	16.97	18	89	4	22	18	74
Fort Niagara	16.32	20.50	23.85	20.28	20.08	33	4	12.92	16.08	2	10	18	102	6	25
Buffalo Barracks	14.00	17.16	23.16	16.21	18.17	36	— 2	17.83	20.17	3	7	19	52	4	11
Alleghany Arsenal	19.82	23.89	28.78	22.92	23.84	44	6	20.16	17.84	17	32	9	10	7	7
Carlisle Barracks	17.20	24.17	30.15	22.70	23.90	48	— 5	24.10	18.90	19	..	1	..	36	..
Fort Mifflin	23.75	28.21	31.08	26.25	27.78	47	12	19.22	15.78	5	12	22	44	5	11
Fort McHenry	23.12	31.30	33.40	27.60	28.13	51	10	32.87	18.13	8	9	30	41	1	1
Fort Monroe	33.30	30.26	41.21	36.11	37.12	58	17	20.88	20.12	1	3	19	26	7	9
Fort Macon	41.40	44.60	47.60	44.20	44.50	62	26	17.50	18.50	9	15	13	26	2	2
Fort Johnston	42.00	....	52.00	47.00	47.00	72	20	25.00	27.00	32	..	4	..	24	..
Augusta Arsenal	39.07	44.53	54.32	45.32	46.60	72	18	26.31	28.69	2	6	1	1	0	0
Fort Moultrie	45.28	47.17	52.17	49.89	48.73	64	24	15.27	24.73	5	16	8	24	22	69
Oglethorpe Barracks	46.32	50.03	60.96	52.07	53.17	76	26	22.83	27.17	9	14	16	25	6	10
Fort Marion	50.10	61.05	63.03	55.08	58.09	84	28	25.81	30.09	14	15	32	37	0	0
Fort Shannon	47.14	56.07	66.93	55.75	57.04	86	28	29.96	29.04	22	24	13	18	6	8
Fort King	45.04	53.39	65.03	50.32	55.04	79	18	23.96	37.04	12	21	23	34	14	20
Fort Brooke	52.50	61.25	67.39	58.10	59.92	79	32	19.08	27.92	25	36	19	39	12	17
Fort Stansbury	44.50	56.00	63.93	55.28	54.22	78	24	23.78	30.22	20	46	4	7	10	24
Camp Barrancas	50.60	56.21	59.32	55.32	54.96	69	30	14.04	24.96	10	32	17	67	0	0
Fort Morgan	51.10	52.50	57.25	54.68	54.17	64	34	9.83	20.17	28	78	12	22	12	21
Mount Vernon Arsenal	43.00	47.20	57.80	47.60	50.70	70	26	19.30	24.70	0	0	31	32	0	0
Fort Pike	46.00	50.10	58.60	51.70	52.30	72	26	19.70	26.30	18	59	18	57	11	25
Fort Wood	45.49	53.27	60.55	53.12	52.38	78	27	15.62	25.38	18	31	21	34	4	4
New Orleans	47.03	56.43	61.28	52.80	54.16	74	28	19.84	26.16	9	14	24	37	2	3
Baton Rouge	45.50	52.00	63.50	54.00	54.50	80	24	25.50	30.50	29	75	0	0	26	53
Fort Jesup	41.00	45.08	54.70	47.30	47.90	72	18	24.10	29.90	51	102	8	16	0	0
Fort Washita	33.70	40.30	49.00	40.50	41.70	68	15	26.30	26.70	21	63	23	55	1	4
Fort Towson	34.40	40.70	53.70	40.90	43.60	70	14	26.40	29.60	23	70	21	25	5	12
Fort Gibson	30.18	34.19	45.12	34.21	38.17	63	11	24.83	27.17	9	17	16	32	4	9
Fort Smith	28.42	36.78	45.82	33.67	36.83	71	7	34.17	29.83	2	8	11	32	4	14
Fort Scott	21.20	26.50	34.90	25.09	28.05	57	4	28.95	24.05	17	56	25	87	5	8
Jefferson Barracks	18.71	24.03	30.64	22.57	23.76	53	— 2	29.24	25.76	6	10	4	10	7	8
St. Louis Arsenal	15.92	23.78	29.17	19.92	22.54	48	— 2	25.46	24.54	24	40	18	30	13	35

MONTH OF FEBRUARY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
8	18	9	24	12	55	17	73	21	73	3.50	3.96	2.46	2.21	3.03	7	21	0	6	....	
9	40	19	46	51	130	17	40	10	27	5.03	4.85	3.17	4.96	4.50	14	14	1	11	....	
8	17	9	28	12	35	20	60	26	88	4.00	5.00	3.50	4.00	4.12	13	15	1	7	3.15	
9	31	18	74	16	42	37	131	9	35	4.10	4.80	4.60	3.25	4.11	10	18	3	8	2.80	
1	5	5	7	6	11	48	110	25	65	4.28	5.10	5.21	4.85	4.86	13	15	3	9	3.87	
4	15	2	6	30	69	34	76	24	54	8.06	7.93	5.75	8.25	7.62	14	14	3	7	6.74	
1	5	0	0	22	98	31	83	14	37	5.32	4.96	4.82	3.96	4.76	17	11	2	10	6.43	
3	7	1	1	21	55	14	39	39	102	4.28	4.71	4.32	4.71	4.50	12	16	3	10	3.42	
7	7	3	4	4	7	5	12	58	152	3.50	4.36	4.18	1.00	3.27	4	24	1	6	2.31	Therm. protected.
4	9	6	9	10	26	8	23	36	176	5.40	4.10	4.08	4.70	4.57	9	19	1	7	1.90	Therm. protected.
11	16	2	2	7	8	9	14	58	151	4.08	4.06	4.00	4.08	4.05	9	19	1	10	3.02	
3	14	17	69	15	25	50	183	14	72	6.57	6.67	5.60	6.32	6.29	13	15	0	11	....	
9	52	3	17	14	53	4	8	36	169	5.46	4.50	4.57	4.07	4.15	13	15	1	10	1.46	
25	69	6	15	7	28	5	19	46	164	2.00	2.21	2.14	2.70	2.26	7	21	1	13	1.85	
14	53	3	8	10	31	21	98	23	136	1.35	1.57	1.39	2.46	1.69	2	26	0	13	....	
2	8	2	10	39	208	25	120	18	129	0.00	0.92	1.07	0.25	0.56	0	28	2	6	2.27	
2	8	1	2	55	215	13	49	3	13	1.17	2.30	2.20	2.26	1.98	6	22	1	17	1.70	
2	9	0	0	1	2	6	18	33	130	1.85	2.32	3.75	3.92	2.96	8	20	2	10	3.31	
23	..	7	..	0	..	22	..	1	..	3.50	5.39	5.96	5.21	5.01	12	16	1	3	....	
5	10	3	4	14	34	31	89	26	65	3.96	6.82	6.86	6.71	6.08	18	10	2	5	1.92	
10	13	5	7	26	77	7	14	22	54	3.22	4.24	4.00	5.11	4.14	9	19	5	7	2.20	
10	12	7	9	33	57	18	63	21	61	4.24	3.13	4.15	6.19	4.67	12	16	7	3	4.00	
7	9	0	0	34	126	16	62	20	54	5.50	6.00	6.00	6.05	5.88	18	10	9	1	....	
0	..	12	..	24	..	16	..	4	..	7.00	7.00	7.00	7.00	7.00	20	8	6	0	....	Defective.
17	20	13	30	38	72	2	5	41	97	5.92	5.92	6.35	7.35	6.13	22	6	6	1	....	
6	15	4	10	15	60	34	117	14	43	4.92	5.07	5.07	6.64	5.43	14	14	7	0	2.09	
7	14	14	37	13	37	19	53	26	64	5.03	5.14	5.78	6.67	5.65	17	11	6	0	2.03	
9	12	1	1	19	34	16	18	19	26	5.03	5.06	5.02	5.07	5.04	15	13	7	0	....	Temp. in error.
12	19	6	12	20	50	10	26	23	31	4.92	5.36	5.46	6.32	5.51	16	12	7	0	3.79	
11	18	20	33	15	26	0	0	16	32	5.60	8.10	7.93	5.48	6.78	23	5	4	0	....	
2	3	11	17	19	45	10	18	9	29	6.46	7.32	7.14	6.96	6.97	20	8	7	0	5.70	
6	16	35	57	5	11	6	24	26	90	4.00	5.14	5.25	6.00	5.10	16	12	10	1	....	
21	64	7	22	26	72	6	22	18	67	4.10	4.35	5.00	4.57	4.50	16	12	8	0	2.77	
11	25	12	34	15	31	5	10	13	38	4.03	4.39	5.93	6.25	5.15	16	12	6	0	1.22	Rain in deficiency.
37	43	4	7	18	35	1	1	31	66	5.00	5.00	6.00	5.40	5.52	15	13	10	0	5.90	
21	49	12	38	9	30	10	33	10	35	4.30	4.70	4.70	4.35	4.51	13	15	3	0	....	
13	17	35	51	3	8	6	9	8	22	3.60	4.14	4.10	4.46	4.07	10	18	8	0	....	
12	27	19	47	12	35	2	5	15	40	4.45	4.50	4.93	4.55	4.61	15	13	6	0	3.80	
16	41	14	18	6	11	14	22	13	49	7.00	7.00	7.00	6.85	6.96	16	12	5	0	2.39	
0	0	35	70	9	22	0	0	9	36	4.60	4.75	5.03	4.75	4.78	13	15	4	1	1.41	
12	32	7	22	25	61	2	6	20	44	5.00	6.00	6.10	6.30	5.83	17	11	..	..	....	
3	6	11	30	10	27	6	7	32	81	4.40	2.90	5.70	5.90	4.72	16	12	2	1	0.25	
20	39	11	20	14	21	7	15	26	51	6.96	7.53	7.71	7.89	7.52	25	3	1	0	0.70	
10	30	3	14	16	49	4	13	33	109	4.14	5.71	5.21	5.64	5.17	13	15	4	2	0.26	
6	13	12	31	14	42	3	5	22	68	2.90	3.50	4.30	4.30	3.75	10	18	5	2	0.20	
7	12	10	26	8	30	16	19	54	168	2.03	3.10	3.57	6.14	3.40	10	18	2	9	1.75	
9	25	3	4	3	8	20	68	18	41	2.00	3.00	3.00	2.00	2.50	6	22	1	8	1.30	

MONTH OF FEBRUARY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Dearbornville Arsenal..	11.15	14.24	23.20	18.22	17.17	44	—11	26.83	28.17	9	12	14	25	9	15
Detroit Barracks.......	13.85	17.82	24.85	18.64	19.25	37	— 6	17.75	25.25	13	40	10	38	0	0
Fort Gratiot...........	14.60	19.30	22.32	16.45	18.46	38	—10	19.54	28.46	3	13	22	87	1	3
Fort Mackinac.........	4.46	11.67	13.92	8.75	9.25	24	—11	14.75	20.25	15	35	16	40	6	6
Fort Brady............	— 4.21	2.39	11.60	3.71	3.69	26	—32	22.31	35.69	31	108	16	29	24	29
Fort Winnebago.......	1.71	6.89	15.78	7.03	8.75	38	—19	29.25	27.75	9	28	8	22	4	11
Fort Atkinson	3.42	9.50	13.35	5.67	8.39	36	—22	27.61	30.39	40	98	12	42	6	14
Fort Crawford.........	1.50	7.16	13.24	3.16	7.70	40	—31	32.30	38.70	7	15	5	8	1	1
Fort Snelling..........	— 3.85	1.32	9.03	1.53	2.01	30	—23	27.42	25.58	12	26	9	24	3	4
Fort Leavenworth	14.14	17.07	23.67	19.46	20.50	43	— 2	22.50	22.50	7	17	16	39	6	12
Fort Croghan..........	7.32	9.11	20.25	13.96	13.78	40	— 8	16.22	21.78	38	135	24	66	12	23

MONTH OF FEBRUARY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	18	0	0	15	33	14	33	36	106	3,07	3.00	3.00	2.07	2.78	6	22	1	8	2.11	
0	0	7	24	62	244	10	33	7	25	1.68	1.82	1.79	2.93	2.05	8	23	1	14	1.99	
5	21	4	11	45	132	15	34	15	51	2.93	2,96	2.11	2.06	2.51	8	20	1	12	2,64	
6	18	0	0	7	15	28	81	32	76	3.75	4.67	4.32	3.42	4.09	11	17	0	13	....	
8	10	2	2	7	8	9	23	12	46	3.90	4.50	4.30	4.70	4.35	13	15	0	9	1.06	
3	13	6	16	3	5	27	46	27	103	3.92	4.67	5.58	4.10	4.52	12	16	0	11	0.62	
0	0	0	0	0	0	7	23	46	104	4,64	3,96	3.67	4.17	4.11	11	17	0	14	....	
17	29	6	6	14	14	6	12	49	92	4.10	4,19	8.30	4.26	4.46	11	17	0	11	0.93	
12	22	3	5	26	52	10	24	29	52	4,82	5.64	5.21	5.71	5.34	10	18	0	8	1.46	
0	0	19	32	3	4	4	9	58	167	5,75	5.82	6.29	6.42	6.07	16	12	0	6	0.10	
10	16	2	7	10	14	5	8	11	23	3 53	3.50	3.67	5.17	3.84	9	19	0	8	....	

MONTH OF MARCH, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Fort Kent	13.61	24.74	35.48	19.22	24.54	48	—11	23.46	35.54	13	17	2	6	1	1
Fort Fairfield	14.41	22.51	31.96	19.38	23.18	48	—10	24.82	33.18	3	12	11	48	7	32
Hancock Barracks	17.96	24.00	34.00	23.00	25.98	46	2	20.02	23.98	24	60	13	40	14	52
Fort Sullivan	21.70	27.77	33.48	26.67	27.40	48	6	20.60	21.60	8	37	17	83	2	2
Fort Preble	20.67	27.09	33.12	26.70	26.89	40	8	13.11	14.89	20	50	5	14	8	33
Fort Constitution	22.90	27.60	35.10	27.90	29.08	45	12	15.92	17.08	4	5	7	20	10	45
Watertown Arsenal	19.19	28.00	34.00	25.12	26.58	47	7	20.42	19.58	4	12	7	9	2	7
Fort Adams	26.16	30.58	33.45	28.83	29.80	44	14	14.20	15.80	12	43	7	29	4	20
Fort Trumbull	20.32	25.70	31.38	24.45	25.85	48	6	22.15	19.85	10	18	5	18	5	22
Fort Columbus	27.00	30.00	33.61	29.29	30.31	46	15	15.69	15.31	5	11	10	27	8	14
Fort Hamilton	26.60	28.30	34.90	30.20	30.80	49	14	18.20	16.80	14	64	9	28	18	39
West Point	22.48	25.41	31.07	26.58	26.77	47	13	20.23	13.77	7	15	4	5	0	0
Watervleit Arsenal	16.27	29.15	35.23	21.10	25.19	46	— 3	20.81	28.19	1	3	0	0	1	4
Plattsburg Barracks	19.58	26.09	32.32	22.45	25.95	46	5	20.50	20.95	8	20	5	90	0	0
Madison Barracks	17.80	21.29	28.16	21.16	23.30	48	— 7	24.70	30.30	3	9	8	28	4	8
Fort Ontario	19.96	23.70	28.58	22.35	24.27	42	— 2	17.73	26.27	4	10	18	95	8	19
Fort Niagara	21.61	27.48	29.87	24.61	25.74	37	10	11.26	15.74	0	0	18	76	0	0
Buffalo Barracks	16.80	24.03	28.70	21.60	19.20	40	— 4	20.80	23.20	3	6	17	45	4	4
Alleghany Arsenal	20.83	26.70	32.16	26.48	26.05	52	6	25.95	20.05	18	20	9	12	10	13
Carlisle Barracks	20.07	27.90	33.70	25.70	26.88	52	10	25.12	16.88	5	..	1	..	21	..
Fort Mifflin	25.12	30.77	35.84	29.42	30.45	56	14	25.55	16.45	0	0	18	47	7	21
Fort McHenry	25.80	33.30	37.00	29.25	30.14	53	3	22.86	27.14	6	8	17	45	5	9
Fort Severn	27.64	33.06	37.96	31.87	32.46	55	14	22.54	18.46	24	83	4	15	4	12
Fort Monroe	32.14	36.19	42.05	35.20	37.09	64	19	26.01	18.09	2	3	26	80	18	31
Fort Macon	38.40	42.07	47.70	43.10	43.05	63	25	19.95	18.05	10	32	35	112	4	15
Fort Johnston	40.00	48.00	52.00	46.00	46.50	65	22	18.50	23.50	12	..	20	..	12	..
Augusta Arsenal	37.58	42.70	50.19	42.25	43.87	82	22	38.13	21.87	11	18	31	48	0	0
Fort Moultrie	46.45	46.58	51.19	50.25	48.82	67	34	19.18	14.82	5	17	19	82	31	115
Oglethorpe Barracks	45.26	48.71	55.87	49.70	49.90	69	28	19.10	21.90	12	21	24	59	3	6
Fort Marion	51.50	57.61	59.19	57.70	55.12	72	37	16.88	18.12	25	32	42	61	1	2
Fort Shannon	51.93	57.48	65.35	54.51	58.80	84	34	26.20	24.80	18	31	28	47	8	16
Fort Brooke	55.06	65.00	70.22	61.54	62.67	82	38	19.33	24.67	17	36	21	52	4	8
Camp Barrancas	47.80	52.00	56.48	51.90	52.14	70	34	17.86	18.14	27	74	32	91	9	27
Fort Morgan	48.01	50.16	54.32	52.38	51.16	64	32	12.84	19.16	42	122	24	55	10	31
Mount Vernon Arsenal.	41.00	45.70	55.18	45.50	47.70	72	24	24.30	23.70	0	0	41	41	0	0
Fort Pike	43.10	47.80	56.20	48.70	49.65	72	26	22.35	23.65	21	76	38	108	17	51
Fort Wood	44.11	50.29	57.44	50.28	51.41	77	28	25.59	23.41	40	72	16	50	38	55
New Orleans	46.64	53.64	57.42	50.74	52.03	76	33	23.97	19.03	14	37	41	82	5	9
Baton Rouge	42.77	48.58	60.16	50.21	51.47	75	27	23.53	24.47	45	124	11	22	10	19
Fort Jesup	36.70	40.30	46.50	39.40	41.60	70	16	28.40	25.60	35	103	41	109	0	0
Fort Washita	29.30	35.10	43.70	38.90	36.50	69	14	32.50	22.50	23	66	16	28	1	2
Fort Towson	31.09	36.32	46.90	38.60	39.00	68	10	29.00	29.00	39	120	17	27	19	42
Fort Gibson	25.42	29.26	39.19	33.30	39.50	64	10	24.50	29.50	34	57	8	11	1	1
Fort Smith	23.19	32.51	40.32	30.00	31.53	67	— 3	25.47	34.53	0	0	18	64	14	44
Fort Scott	16.70	23.70	32.40	23.45	24.55	48	2	23.45	22.55	16	49	32	66	14	30
Jefferson Barracks	18.93	24.93	32.77	25.51	25.50	52	4	26.50	21.50	5	14	14	34	8	20
St. Louis Arsenal	18.35	25.90	32.22	25.83	25.28	50	4	24.72	21.28	9	12	21	31	16	24

MONTH OF MARCH, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	11	11	20	12	22	50	146	31	90	1.58	2.61	2.48	2.45	2.28	4	27	1	8	....	
9	25	4	11	41	95	37	165	12	40	4.25	3.87	3.54	4.77	4.11	13	18	2	11	....	
8	18	7	18	12	33	19	72	25	87	4.00	4.00	3.00	4.00	3.75	16	15	2	11	2.79	
25	101	7	13	16	55	41	126	14	54	3.74	3.00	3.52	3.22	3.37	16	15	2	11	3.38	
7	24	12	18	27	44	26	59	19	60	4.70	4.83	4.67	5.00	4.80	14	17	2	6	5.20	
4	18	5	8	3	7	34	79	50	212	5.03	5.16	4.45	5.19	4.95	17	14	3	11	1.40	Rain in deficiency.
12	31	2	4	23	46	34	68	37	122	7.69	8.04	7.57	8.21	5.87	17	14	3	6	5.41	
7	37	1	6	34	168	21	109	31	151	5.90	6.09	5.58	4.99	5.66	17	14	5	7	5.68	
8	46	3	11	9	29	16	30	69	226	4.77	4.80	5.38	5.35	5.09	15	16	6	5	5.92	
6	8	1	1	7	11	5	27	73	219	5.84	6.12	6.55	5.48	5.99	17	14	2	7	2.13	Therm. protected.
5	15	2	5	10	34	8	31	40	220	5.50	5.70	5.25	6.80	5.81	15	16	4	8	4.20	Therm. protected.
2	3	9	14	1	4	20	40	67	197	4.38	5.41	4.70	5.78	4.96	15	16	3	7	5.05	
10	27	15	51	10	19	65	277	19	55	4.35	4.61	5.19	5.32	4.86	11	20	0	8	1.30	
4	9	6	23	25	115	6	20	23	200	3.61	3.35	3.80	3.74	3.62	18	13	1	12	2.88	
23	69	12	36	22	78	7	25	45	166	2.20	3.23	2.29	3.03	2.68	9	22	1	12	2.57	
13	42	9	18	22	52	28	111	17	87	2.48	3.25	2.80	3.50	3.01	9	22	2	16	....	
15	69	7	24	28	133	17	78	35	203	0.22	2.54	3.25	2.90	2.27	5	26	3	9	2.74	
4	5	2	2	75	311	7	22	3	8	2.15	3.12	3.16	3.21	2.91	11	20	3	12	3.28	
2	5	0	0	3	6	11	34	41	133	4.25	4.09	4.12	3.93	4.09	10	21	3	5	3.27	
32	..	4	..	3	..	37	..	14	..	5.89	6.12	6.74	6.19	6.23	18	13	3	6	....	
8	20	1	3	20	64	32	107	36	124	6.20	7.13	6.58	6.70	6.65	21	10	5	4	4.45	
6	15	3	3	19	53	26	100	38	120	5.14	6.26	6.24	5.18	5.65	16	15	7	3	3.80	
4	12	13	43	8	19	28	85	34	129	4.87	5.32	5.35	6.35	5.47	17	14	8	2	3.00	
9	19	2	7	14	42	18	48	32	92	5.70	5.60	4.18	6.30	5.42	18	13	8	1	3.30	
8	13	0	0	36	121	11	46	19	59	5.50	5.30	5.80	6.10	5.67	19	12	10	0	....	
2	..	4	..	22	..	14	..	0	..	5.00	6.00	5.00	5.00	5.25	17	14	..	..	....	Defective.
4	8	9	9	18	25	0	0	46	88	3.90	4.12	4.90	4.96	4.47	18	13	12	1	....	
2	8	0	0	8	34	32	121	20	73	4.16	4.48	4.22	5.16	4.55	13	18	13	1	10.52	Therm. protected.
12	28	14	35	8	18	16	48	31	79	3.10	3.48	3.61	5.25	3.86	12	19	14	0	12.51	
4	7	3	4	16	41	4	11	24	28	6.10	4.77	5.54	7.66	6.01	14	17	8	0	....	
9	23	7	7	19	61	6	21	29	51	3.83	4.30	4.58	5.12	4.46	14	17	14	0	11.28	
8	16	8	19	21	79	16	42	14	40	2.93	4.71	6.13	6.42	5.09	16	15	8	0	7.20	
11	26	5	11	9	28	2	6	28	106	2.35	2.90	3.80	3.93	3.24	11	20	15	0	7.85	
13	30	6	12	6	20	4	13	17	68	2.30	3.80	4.30	4.45	3.72	13	18	10	0	6.70	
8	10	1	3	10	14	1	1	59	140	3.50	4.18	5.30	4.75	4.43	10	21	11	1	9.22	
11	26	4	14	8	25	11	32	7	27	2.70	3.70	3.30	3.90	3.40	11	20	9	0	....	
2	4	7	10	2	4	13	23	4	8	2.90	2.93	3.70	3.77	3.32	9	22	12	1	....	
7	15	7	18	8	15	7	23	14	43	2.42	3.77	3.98	4.00	3.54	11	20	16	1	5.31	
9	21	16	36	3	9	7	15	13	36	5.16	5.41	5.48	5.06	5.52	15	16	12	0	6.54	
4	7	22	50	12	20	0	0	6	21	4.45	4.51	4.12	4.00	4.27	14	17	10	2	3.25	
25	58	1	2	12	30	2	6	27	60	4.50	4.60	5.00	5.50	4.90	18	13	4	4	....	
8	11	5	13	4	6	5	17	17	64	4.00	4.40	4.60	4.60	4.40	14	17	9	2	3.35	
7	7	13	15	23	25	5	8	41	67	3.77	5.96	7.19	6.38	5.82	13	18	4	3	1.31	
8	24	2	2	7	21	4	16	36	145	4.29	4.93	4.45	5.61	4.82	14	17	5	4	2.29	
9	20	2	3	9	22	4	10	29	86	4.40	3.90	3.60	5.00	4.22	11	20	8	4	1.75	
15	36	2	5	9	16	11	38	56	168	3.48	3.89	4.19	4.87	4.10	12	19	5	6	2.30	
8	12	7	10	9	22	23	46	25	52	3.00	4.00	3.00	3.00	3.25	11	2.	4	4	2.29	

MONTH OF MARCH, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Dearbornville Arsenal..	12.21	19.91	29.16	20.30	20.68	40	— 6	19.32	26.68	3	7	9	30	19	41
Detroit Barracks......	14.80	21.71	30.39	21.35	22.45	39	— 5	16.55	27.45	6	16	33	124	0	0
Fort Gratiot...........	13.66	25.40	26.26	19.63	19.96	40	— 7	20.04	26.96	1	1	22	67	16	41
Fort Mackinac........	9.26	22.68	22.32	13.58	16.87	32	— 7	15.23	21.87	8	22	9	21	18	70
Fort Brady............	3.58	4.30	21.83	9.90	12.70	32	—21	19.30	33.70	31	114	1	3	30	84
Fort Winnebago.......	2.29	12.43	22.48	12.54	12.38	39	—19	26.62	31.38	7	19	4	10	5	18
Fort Atkinson.........	— 0.70	9.09	15.09	5.77	7.53	33	—16	25.47	23.53	36	80	32	84	5	10
Fort Crawford.........	2.29	7.15	19.90	7.80	8.29	34	—23	25.71	31.29	4	6	0	0	0	0
Fort Snelling..........	— 5.38	4.83	15.70	3.55	4.67	27	—20	22.33	24.67	8	21	4	9	1	1
Fort Leavenworth......	10.38	17.12	24.45	18.16	17.45	40	— 4	22.55	21.45	18	40	3	6	7	11
Fort Croghan..........	4.54	8.93	21.19	12.22	12.86	36	— 9	13.14	21.86	52	189	18	47	16	47

MONTH OF MARCH, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	8	2	2	14	40	41	124	22	72	3.29	3.60	3.70	5.19	3.95	14	17	1	6	1.80	
1	5	2	6	69	250	7	26	6	13	2.77	3.61	2.77	4.42	3.39	8	23	3	9	1.85	
0	0	1	4	27	77	32	63	10	35	3.40	3.90	2.60	3.40	3.32	12	19	1	15	2.23	
5	16	2	3	1	2	23	67	56	158	3.93	4.55	3.87	4.51	4.21	9	22	0	14	....	
7	10	4	7	5	10	21	55	23	70	4.00	4.70	4.70	5.00	4.60	14	17	0	7	0.68	
9	25	5	10	3	9	15	30	54	160	5.16	5.87	5.96	5.70	5.67	17	14	9	11	0.39	
0	0	0	0	1	2	3	9	46	106	5.74	5.87	5.48	6.96	6.01	15	16	0	10	....	
13	32	1	1	28	33	7	16	72	118	5.10	6.80	6.70	6.40	6.25	11	20	0	7	0.58	
18	40	0	0	47	73	6	12	41	93	6.22	6.29	7.70	7.25	6.86	15	16	0	9	0.82	
5	9	19	49	8	19	11	38	41	101	6.41	5.93	6.70	6.93	6.49	18	13	1	7	1.35	
7	21	6	14	6	15	4	9	15	42	3.48	4.03	3.48	5.93	4.23	12	19	1	10	....	

MONTH OF APRIL, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	29.55	40.16	55.26	34.40	40.00	67	12	27.00	28.00	17	17	1	2	0	0
Fort Fairfield	28.36	39.96	48.43	34.60	38.40	70	12	31.60	26.40	3	10	1	5	5	15
Hancock Barracks	32.63	41.00	50.00	39.00	41.47	67	16	25.53	25.47	19	53	25	75	7	11
Fort Sullivan	34.60	39.66	46.30	37.96	40.45	66	26	25.55	14.45	0	0	8	50	0	0
Fort Preble	36.90	39.93	44.46	38.83	40.68	56	24	15.32	16.68	9	23	15	27	10	12
Fort Constitution	37.73	42.93	46.50	40.36	42.15	57	22	14.85	20.15	8	9	31	69	6	18
Watertown Arsenal	38.00	45.56	49.90	41.83	43.81	69	17	26.09	26.81	8	13	22	41	11	15
Fort Adams	40.26	45.36	50.06	40.06	45.16	64	28	19.18	17.16	13	66	21	110	17	57
Fort Trumbull	39.13	45.73	50.23	42.60	44.68	68	24	23.32	20.68	8	15	27	90	11	32
Fort Columbus	43.67	46.87	51.10	44.30	47.38	66	29	18.62	18.38	8	12	28	40	2	4
Fort Hamilton	43.10	46.60	53.90	47.05	48.50	73	30	24.50	18.50	9	30	15	40	10	15
West Point	41.93	47.63	52.50	46.86	47.20	70	26	22.80	21.20	14	26	3	5	1	1
Watervliet Arsenal	35.50	41.30	49.90	41.75	42.70	76	14	33.30	28.70	15	41	2	6	0	0
Plattsburg Barracks	37.46	43.92	50.03	39.40	43.75	64	16	20.25	27.75	2	2	10	18	0	0
Madison Barracks	36.16	43.50	46.13	40.40	42.30	70	14	27.70	28.30	3	13	5	19	10	30
Fort Ontario	37.53	44.00	47.80	41.16	42.76	73	24	30.24	18.76	8	15	15	31	6	7
Fort Niagara	37.20	43.66	46.30	40.20	41.75	67	21	25.25	20.75	2	6	34	134	0	0
Buffalo Barracks	36.16	43.80	49.16	40.19	43.30	72	18	28.70	25.30	12	20	19	49	5	7
Alleghany Arsenal	41.00	44.33	55.03	48.00	48.01	70	21	22.99	27.01	12	17	5	8	13	28
Carlisle Barracks	42.50	52.70	59.20	49.60	50.80	77	24	26.20	26.80	5	..	15	..	32	..
Fort Mifflin	43.46	51.30	57.63	48.23	50.36	75	30	24.64	20.36	1	2	37	103	4	12
Fort McHenry	45.20	50.10	56.17	50.80	50.28	72	26	21.72	24.28	3	5	28	63	5	5
Fort Severn	44.86	53.13	58.30	49.83	51.46	78	27	26.54	24.46	13	42	4	19	3	8
Fort Monroe	49.05	54.20	60.12	52.12	55.30	82	32	26.70	23.30	2	2	17	36	21	37
Fort Macon	53.10	57.70	62.65	58.05	37.87	73	39	15.13	18.87	13	37	20	62	12	3
Fort Johnston	55.00	60.00	68.00	59.00	61.50	78	43	16.50	18.50	4	..	12	..	4	..
Augusta Arsenal	54.60	64.66	75.06	62.06	64.76	94	40	29.24	24.76	7	9	16	30	1	3
Fort Moultrie	63.20	63.63	66.16	65.66	64.78	75	52	10.32	12.68	5	17	8	19	30	105
Oglethorpe Barracks	59.33	65.20	74.56	65.70	66.90	92	46	25.10	20.90	7	12	20	49	12	56
Fort Marion	61.20	71.30	73.90	66.20	67.50	92	52	24.50	15.50	6	6	49	63	0	0
Fort Shannon	62.66	70.78	79.66	68.56	70.86	93	50	12.14	20.86	15	14	8	5	18	15
Key West	73.52	82.12	82.76	74.88	78.14	90	68	11.86	10.14	10	22	17	50	16	51
Fort Brooke	64.86	73.83	80.46	71.43	72.56	88	52	15.44	20.56	18	38	5	13	1	3
Camp Barrancas	66.06	70.46	74.00	67.93	70.03	82	54	11.97	16.03	11	25	17	42	11	30
Fort Morgan	66.30	67.70	70.83	68.90	68.43	80	54	11.57	14.43	14	33	11	26	4	9
Mount Vernon Arsenal	60.60	66.60	78.30	66.70	69.50	90	46	20.50	23.50	0	0	20	35	4	5
Fort Pike	65.30	71.40	77.50	69.70	71.40	90	52	18.60	19.40	4	5	14	33	15	35
Fort Wood	65.20	72.00	78.00	69.32	71.12	87	54	15.88	17.12	30	37	3	3	29	47
New Orleans	63.83	70.83	76.87	69.06	70.85	86	49	15.15	21.85	5	6	16	35	3	9
Baton Rouge	63.26	71.33	82.26	69.70	72.76	90	48	17.24	24.76	14	19	6	10	21	49
Fort Jesup	59.20	68.10	80.10	67.70	69.65	94	44	24.35	25.65	2	4	7	14	14	32
Fort Washita	55.20	65.40	75.50	63.30	65.30	92	32	26.70	33.30	0	0	20	28	7	9
Fort Towson	56.00	63.80	75.36	64.53	66.51	92	36	25.49	30.51	20	28	13	21	21	52
Fort Smith	49.53	60.63	70.93	57.73	60.23	82	29	21.77	31.23	1	2	14	29	12	35
Fort Gibson	53.70	58.60	72.30	58.70	62.40	86	36	23.60	26.40	0	0	9	11	5	7
Fort Scott	45.10	52.80	62.80	52.65	53.95	87	27	33.05	26.95	8	14	21	35	17	30
Jefferson Barracks	45.46	53.60	60.66	53.40	52.66	87	22	34.32	30.66	5	9	14	22	13	29

MONTH OF APRIL, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	8	31	43	15	21	33	61	18	48	2.15	3.33	3.80	1.86	2.79	8	22	5	5	....	Temp. in excess at 3 [p. m.
5	10	29	115	23	52	32	88	22	79	4.50	3.70	3.60	3.73	3.88	12	18	6	7	....	
18	52	31	·78	3	8	6	11	10	30	3.50	3.00	3.00	3.00	3.12	14	16	6	4	3.92	
20	45	15	29	33	60	25	39	22	56	4.13	4.96	4.83	4.00	4.48	14	16	7	2	3.05	
21	29	14	14	23	20	15	18	13	32	3.23	3.50	3.73	3.20	3.42	12	18	9	3	4.42	
6	9	17	23	3	4	15	17	29	98	3.10	3.60	4.33	4.43	3.86	12	18	6	3	2.77	
11	28	9	19	10	19	23	48	24	54	2.00	2.03	2.00	1.90	1.98	12	18	11	3	3.60	
21	55	8	16	18	45	9	44	13	60	4.20	4.30	4.53	4.30	4.33	15	15	10	1	7.56	
17	52	9	15	11	22	1	3	37	111	3.53	3.86	4.16	4.30	3.96	13	17	11	1	4.20	
14	25	0	0	14	17	4	4	48	64	4.20	5.57	6.27	4.97	5.25	12	18	13	0	2.14	Therm. protected.
19	32	5	7	7	12	10	32	13	47	4.30	4.10	4.60	4.90	4.47	13	17	8	1	5.70	Therm. protected.
5	16	10	19	1	1	11	15	30	66	3.90	4.30	3.83	4.56	4.14	14	16	12	1	3.40	
11	60	19	68	0	0	47	70	20	64	5.70	5.60	4.70	4.06	5.01	14	16	9	3	4.26	
15	44	3	20	24	66	3	10	63	169	2.73	4.30	4.70	3.73	3.86	11	19	7	2	1.48	
24	76	31	107	32	93	2	8	8	25	3.30	3.12	3.14	3.29	3.21	10	20	8	0	2.15	
28	57	13	30	13	24	23	47	9	31	2.60	2.80	4.46	3.70	3.39	10	20	10	5	....	
16	47	5	11	30	83	10	31	22	65	2.83	4.76	5.30	3.53	4.10	10	20	10	2	2.81	
5	7	2	2	52	108	3	5	14	45	3.30	4.50	4.12	4.40	4.08	14	16	12	4	3.51	
2	4	1	1	7	24	10	31	17	60	2.10	3.56	3.10	3.53	2.82	8	22	10	3	2.33	
6	..	12	..	0	..	40	..	8	..	4.33	5.63	5.20	5.80	5.24	13	17	13	2	....	
10	27	5	15	24	50	6	9	29	64	5.40	6.76	5.20	4.70	5.51	18	12	13	1	1.58	
19	42	2	2	16	32	12	20	34	90	3.26	3.16	4.20	8.30	3.98	11	19	12	2	2.90	
20	59	12	40	7	20	13	30	41	132	3.66	3.76	3.86	5.36	4.16	14	16	10	0	2.59	
16	42	6	8	21	49	10	24	24	68	4.50	3.26	4.20	5.10	4.26	13	17	11	0	3.10	
14	44	14	46	15	73	7	22	20	57	5.50	5.98	6.00	6.90	6.10	20	10	10	0	11.85	Rain in excess.
8	..	16	..	28	..	0	..	7	..	6.00	7.00	7.00	7.00	6.75	21	9	..	..	....	Inaccurate.
12	18	10	28	65	111	0	0	18	27	5.96	6.36	6.36	7.43	6.52	21	9	4	0	....	
9	28	8	31	19	76	31	103	11	26	5.66	6.73	4.96	6.60	5.98	23	7	2	0	0.02	Therm. protected.
3	8	22	66	21	60	20	54	10	26	4.80	6.10	6.00	7.30	6.05	19	11	3	0	0.84	
13	21	3	3	30	40	5	6	11	11	4.05	5.08	5.30	7.00	5.29	20	10	7	0	....	
14	11	35	48	11	9	6	7	13	13	2.00	5.70	6.16	1.46	3.83	12	18	4	0	2.12	
27	79	7	10	0	0	2	5	21	38	6.36	7.08	7.12	8.44	7.25	22	3	0	0	0.00	Last 25 days.
20	48	6	16	15	38	23	56	29	58	4.10	6.13	6.50	5.70	5.60	22	8	5	0	1.30	
11	34	5	14	34	99	11	25	17	51	3.03	4.10	6.13	6.03	4.82	15	15	8	0	6.86	
26	64	17	34	27	57	6	15	8	18	4.00	6.00	6.00	7.33	5.83	20	10	5	0	2.17	Therm. protected.
18	38	6	0	36	60	4	4	34	64	4.80	6.10	7.00	7.60	6.37	17	13	6	0	5.17	
27	87	17	58	11	30	17	41	11	37	3.70	5.10	5.60	7.00	5.35	15	15	6	0	4.26	
3	6	29	52	10	15	12	15	3	3	3.63	4.26	5.73	7.50	5.28	15	15	7	0	1.50	
23	49	12	30	12	25	6	15	13	23	1.33	3.30	3.73	4.66	3.25	8	22	7	0	2.67	
11	31	40	72	11	21	8	15	5	6	4.00	5.73	7.03	6.00	5.69	16	14	4	0	3.08	
15	22	80	120	9	22	0	0	0	0	4.00	5.50	6.40	6.20	5.52	16	14	4	0	5.60	
25	43	2	3	20	47	4	13	36	59	4.10	5.60	5.80	6.30	5.45	15	15	7	0	....	
12	24	16	49	8	21	8	17	14	32	4.13	4.46	5.50	5.16	4.81	14	16	9	0	7.10	
16	51	6	13	14	44	6	18	16	65	3.76	4.16	5.63	5.50	4.75	13	17	10	0	5.49	
35	80	17	20	36	46	9	14	8	7	3.73	1.91	8.46	8.83	6.99	24	6	6	0	2.71	Therm. protected
20	37	12	27	12	23	1	1	24	43	3.60	3.60	3.10	4.90	3.57	12	18	12	0	4.46	
21	40	3	4	3	5	19	34	38	73	3.76	3.26	3.96	4.53	3.87	13	17	9	1	4.52	

MONTH OF APRIL, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
St. Louis Arsenal	47.03	55.83	65.03	52.60	56.03	88	28	31.97	28.03	3	3	12	16	24	30
Dearbornville Arsenal	39.20	45.24	58.80	43.10	49.00	80	12	31.00	37.00	11	25	19	41	15	25
Detroit Barracks	38.00	46.63	56.97	42.53	46.83	80	14	33.17	32.83	14	56	36	148	3	9
Fort Gratiot	32.23	42.46	47.20	37.53	39.94	74	2	34.06	37.94	7	16	42	100	1	2
Fort Mackinac	30.76	41.10	42.36	35.13	36.56	55	12	19.44	24.56	3	7	12	38	31	138
Fort Brady	26.30	38.00	46.20	32.60	35.96	65	— 1	29.04	36.96	11	37	3	8	37	92
Fort Winnebago	33.10	45.43	55.53	41.90	44.31	80	8	35.69	36.31	2	7	7	32	5	9
Fort Atkinson	36.30	44.63	52.50	41.83	44.40	74	4	29.60	40.40	11	11	11	24	1	2
Fort Crawford	34.70	45.12	59.25	43.29	45.60	79	4	33.40	41.60	3	3	6	12	2	7
Fort Snelling	34.80	42.06	52.30	45.43	43.55	70	1	35.44	42.56	12	35	7	27	8	18
Fort Leavenworth	42.93	51.90	56.63	49.30	49.76	84	23	34.24	26.76	17	33	13	28	4	6
Fort Croghan	39.56	46.50	57.70	46.83	48.63	80	18	31.37	30.63	29	53	11	32	12	48

MONTH OF APRIL, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
22	52	3	3	10	26	25	46	14	20	4.00	4.00	3.00	3.00	3.50	16	14	6	1	4.64	
14	24	2	2	24	48	10	18	21	58	4.29	5.40	5.15	3.10	4.48	17	13	5	0	1.20	Rain in deficiency.
8	22	2	7	36	132	4	17	8	32	3.77	2.90	2.93	3.33	3.23	9	21	10	3	2.05	
18	34	6	21	23	62	6	10	11	30	2.80	3.70	3.90	3.40	4.45	13	17	7	2	2.15	
2	6	1	2	2	5	8	28	58	177	5.33	5.40	5.24	6.24	5.55	19	11	4	3	....	
11	31	6	10	4	15	34	77	12	45	5.40	5.13	5.00	5.60	5.28	16	14	5	1	1.45	
16	56	9	37	7	25	13	48	23	77	5.83	6.03	4.83	6.26	5.73	18	12	4	3	2.14	
17	33	4	8	9	23	10	19	47	89	5.06	5.33	4.40	6.86	5.41	17	13	4	0	....	
18	32	1	1	40	57	3	7	47	79	6.30	6.00	5.29	5.28	5.71	15	15	7	0	1.60	
15	36	17	45	16	68	14	23	19	50	4.33	5.20	4.96	7.26	5.48	16	14	7	0	0.75	
10	6	34	63	10	37	10	27	15	37	6.90	6.66	5.56	6.66	6.47	18	12	7	0	5.53	
25	73	25	56	5	13	4	4	9	25	3.43	3.93	4.03	6.13	4.38	15	15	7	2	....	

MONTH OF MAY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	38.40	51.96	67.50	45.70	50.96	82	22	31.04	28.96	7	12	4	9	4	12
Fort Fairfield	37.51	53.32	60.58	46.83	49.03	80	23	30.97	26.03	5	22	6	19	14	53
Hancock Barracks	40.13	53.50	61.50	50.00	50.75	82	25	31.25	25.75	21	50	12	30	24	65
Fort Sullivan	42.61	47.00	55.90	44.84	49.26	66	34	17.74	13.26	0	0	4	15	3	9
Fort Preble	44.70	49.61	54.77	47.93	49.73	68	35	18.27	14.73	14	28	5	15	7	11
Fort Constitution	46.83	53.64	58.70	50.16	52.77	81	39	28.23	13.77	5	11	13	24	14	16
Watertown Arsenal	46.41	58.38	64.09	52.35	55.25	82	35	26.75	20.25	3	5	10	19	13	20
Fort Adams	48.64	59.64	62.19	49.83	55.42	76	42	20.58	13.42	12	38	22	93	29	90
Fort Trumbull	46.90	56.35	60.87	51.09	53.88	74	36	20.12	17.88	6	20	17	55	4	15
Fort Columbus	53.81	60.00	64.35	55.52	59.08	76	43	16.92	16.08	6	6	36	42	3	4
Fort Hamilton	52.30	56.70	61.50	56.20	56.90	82	42	25.10	14.90	7	20	18	42	14	35
West Point	53.00	61.00	65.00	56.00	59.00	84	40	25.00	19.00	7	11	3	7	2	4
Watervliet Arsenal	49.30	57.90	69.54	57.10	59.42	86	36	26.58	23.42	12	45	1	3	15	42
Plattsburg Barracks	50.67	55.58	63.93	50.87	57.30	80	40	22.70	17.30	0	0	12	18	0	0
Madison Barracks	44.27	58.01	58.00	49.00	51.15	85	32	33.85	19.15	0	0	9	32	5	15
Fort Ontario	44.45	53.00	56.32	48.57	51.25	84	36	20.76	15.25	7	10	11	16	2	2
Fort Niagara	45.06	54.77	56.22	46.90	50.64	83	37	32.36	13.64	2	4	31	78	9	20
Buffalo Barracks	43.17	55.25	61.15	48.90	52.10	82	32	29.90	20.10	6	13	23	74	3	10
Alleghany Arsenal	49.45	56.53	64.67	54.51	57.64	78	34	20.36	23.64	8	18	4	4	9	11
Carlisle Barracks	50.40	64.20	69.90	57.90	60.15	86	36	25.85	24.15	5	..	18	..	39	..
Fort Mifflin	51.55	62.50	70.15	58.13	59.22	81	39	21.78	20.22	4	9	31	82	4	9
Fort McHenry	58.10	60.83	63.84	60.29	60.97	78	45	17.03	15.97	10	11	24	56	6	16
Fort Severn	55.00	62.35	66.32	58.51	60.40	82	44	21.60	16.40	18	70	10	33	3	5
Fort Monroe	58.11	64.17	70.24	59.12	64.18	85	48	20.82	16.18	2	7	32	78	25	74
Fort Macon	62.80	68.70	72.20	67.80	67.50	83	54	15.50	13.50	6	23	19	54	2	4
Fort Johnston	63.00	74.00	78.00	68.00	70.50	85	47	14.50	23.50	6	..	10	..	1	..
Augusta Arsenal	61.29	72.74	81.03	72.00	71.16	94	52	22.84	19.16	21	39	21	30	0	0
Fort Moultrie	69.51	71.12	73.77	72.12	71.61	80	58	8.39	13.61	4	12	8	20	30	87
Oglethorpe Barracks	65.42	72.45	81.61	71.90	73.47	91	56	17.53	17.47	19	46	6	17	18	45
Fort Marion	66.08	75.05	77.03	71.05	71.56	92	62	20.44	9.56	7	10	51	82	0	0
Fort Shannon	67.16	79.25	84.64	72.64	75.90	96	54	20.10	21.90	8	28	37	89	29	46
Key West	76.23	86.23	86.42	75.10	81.32	92	70	10.68	11.32	1	3	34	129	25	65
Fort Brooke	67.40	76.30	82.40	74.20	74.90	86	58	11.10	16.90	8	13	23	59	9	23
Camp Barrancas	71.87	76.32	79.29	74.58	75.58	84	68	8.42	17.58	9	18	8	18	3	5
Fort Morgan	74.42	76.69	79.32	76.83	76.70	85	65	8.30	11.70	22	62	6	9	3	9
Mount Vernon Arsenal	65.45	75.16	85.00	72.30	75.30	94	58	18.70	27.30	0	0	28	48	1	1
Fort Pike	69.95	79.60	85.30	75.60	77.60	93	58	15.40	19.60	7	17	16	42	4	9
Fort Wood	68.40	79.30	84.27	74.17	78.30	91	62	12.70	16.30	18	29	6	9	21	27
New Orleans	70.69	77.76	80.90	75.03	75.79	87	57	11.21	18.79	5	7	18	26	23	33
Baton Rouge	67.67	76.84	86.29	75.25	76.98	92	56	15.02	20.98	17	24	1	1	25	45
Fort Jesup	65.61	78.64	85.81	71.42	75.34	96	50	20.66	25.34	10	17	1	4	2	3
Fort Washita	62.50	66.90	76.80	68.30	69.70	86	50	16.30	19.70	0	0	28	32	5	5
Fort Towson	64.70	70.90	76.00	69.60	70.30	84	52	13.70	18.30	9	11	28	56	14	20
Fort Smith	57.25	67.58	78.12	64.06	67.72	93	46	25.28	23.72	2	6	15	29	8	15
Fort Gibson	60.60	65.29	74.32	67.71	66.93	85	50	18.07	16.93	0	0	47	65	8	9
Fort Scott	56.80	64.20	70.20	60.15	63.50	86	41	22.50	22.50	5	7	22	32	28	50
Jefferson Barracks	57.87	66.54	72.80	64.32	65.34	88	41	22.66	24.34	2	8	12	18	6	9

MONTH OF MAY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	9	33	54	15	34	37	86	18	47	3.32	4.00	4.67	2.19	3.55	12	19	9	1	....	Temp. in excess at 3
11	40	26	103	42	104	12	37	8	28	4.51	4.93	4.74	4.41	4.68	14	17	10	2	....	[p. m.
14	45	29	78	8	26	7	20	9	55	4.00	4.50	4.00	3.50	4.00	13	18	13	2	2.80	
22	41	17	20	54	144	14	37	6	20	4.00	4.19	4.83	4.42	4.36	12	19	6	0	2.35	
32	58	32	48	14	26	15	21	5	13	4.25	5.51	4.51	4.16	4.60	14	17	7	0	4.05	
12	36	32	55	7	10	20	40	17	38	3.32	4.77	4.45	4.64	4.29	16	15	6	0	0.60	
25	46	7	17	21	40	25	45	15	39	3.54	3.48	3.93	4.22	3.79	11	20	5	0	1.86	
17	44	6	18	7	30	8	27	21	69	3.96	5.38	5.38	5.19	4.97	16	15	7	0	3.69	
23	79	7	18	26	75	7	17	30	88	3.59	4.83	4.74	5.45	4.65	14	17	8	0	3.35	
26	42	1	1	10	13	3	1	35	52	5.81	7.06	7.48	4.71	6.26	13	18	7	0	1.00	Therm. protected.
13	26	12	20	20	57	5	17	8	35	5.30	5.10	4.50	5.80	5.17	16	15	7	0	1.32	Therm. protected.
2	2	21	37	11	20	7	13	36	74	5.03	5.05	4.02	5.10	4.80	18	13	7	0	2.28	Therm. protected.
5	17	51	206	1	2	30	118	11	44	6.00	5.70	5.70	4.30	5.42	17	14	6	0	3.25	
15	54	3	8	24	84	4	11	65	154	2.61	3.70	4.64	3.09	3.51	10	21	10	0	4.88	
16	52	24	86	46	161	8	31	15	61	3.30	4.24	4.16	4.29	4.00	14	17	8	0	1.44	
13	24	8	19	23	46	45	107	15	27	4.16	4.29	4.08	5.01	4.38	13	18	11	1	....	
11	20	5	9	23	50	13	26	28	79	2.74	4.80	5.03	3.96	4.13	11	20	11	0	2.39	Temp. in error.
7	25	7	21	55	194	5	17	11	33	4.80	4.10	4.14	4.24	4.32	15	16	12	0	1.65	
5	9	11	16	9	32	18	46	25	61	4.12	3.90	4.76	5.70	4.61	13	18	11	0	4.05	
3	..	11	..	5	..	31	..	2	..	5.12	5.60	6.50	5.90	5.75	18	13	12	0	....	Defective.
13	30	1	1	31	83	9	20	22	38	5.55	5.80	5.90	5.51	5.69	17	14	13	0	3.16	
12	27	3	6	21	43	17	43	21	44	4.30	5.30	4.26	5.30	4.79	16	15	11	0	3.55	Therm. protected.
24	66	23	70	9	19	12	29	21	74	4.19	4.54	4.64	5.03	4.60	16	15	12	0	5.71	
13	28	2	4	29	55	9	12	10	18	4.27	4.80	4.12	6.50	4.92	16	15	13	0	6.20	
11	24	25	80	28	89	2	5	26	88	5.70	6.05	6.20	7.30	6.31	22	9	7	0	6.20	
1	..	4	..	23	..	3	..	3	..	8.00	8.00	9.00	8.00	8.25	26	5	..	..	....	Defective.
9	11	7	13	33	41	5	10	23	39	7.35	7.32	7.41	7.19	7.31	24	7	6	0	....	
6	21	20	47	15	53	20	51	11	26	5.96	6.93	6.09	7.25	6.55	22	9	5	0	2.38	Therm. protected.
16	37	34	71	10	26	7	14	14	34	7.00	6.35	6.34	7.84	6.88	25	6	4	0	2.01	
23	26	1	1	21	22	15	15	5	5	7.06	7.01	6.09	7.06	6.80	25	6	4	0	....	
16	19	3	4	12	20	10	14	9	13	6.93	5.77	5.74	7.71	6.54	23	8	5	0	2.09	
38	98	4	4	1	1	0	0	21	84	6.35	6.10	6.23	6.81	6.37	24	7	10	0	1.03	
33	38	10	17	14	16	3	3	16	28	6.50	7.80	9.10	7.60	7.75	28	3	3	0	2.00	
44	109	6	14	32	88	5	6	16	35	5.49	5.90	6.06	6.96	6.10	22	9	4	0	0.76	Therm. protected.
34	84	17	31	23	55	4	7	10	26	6.00	7.66	7.50	8.50	7.41	25	6	2	0	0.01	Therm. protected.
36	75	4	4	42	64	0	0	15	74	7.22	7.71	7.00	8.84	7.85	25	6	3	0	0.72	
39	103	13	38	18	53	11	33	9	27	5.30	6.10	6.80	8.10	6.57	23	8	3	0	1.55	
3	3	61	81	7	7	8	15	2	7	6.00	5.70	5.20	7.90	6.20	22	9	4	0	0.22	
37	42	10	12	16	28	4	6	11	16	2.84	4.38	5.52	7.69	5.11	13	18	5	0	0.45	
16	52	34	53	6	11	12	15	0	0	5.80	7.35	6.35	7.00	6.62	21	10	7	0	2.78	
18	26	57	123	0	0	5	9	0	0	4.83	6.77	7.22	7.35	6.04	21	10	7	0	4.42	
18	23	1	1	41	96	1	1	27	45	3.20	4.50	5.40	5.80	4.72	15	16	9	0	....	
23	34	7	15	6	11	5	7	11	18	2.90	2.90	4.50	5.30	3.90	11	20	12	0	9.26	
11	24	5	20	16	49	6	6	8	21	4.06	5.45	5.74	5.35	5.15	17	14	11	0	4.85	
59	96	5	9	1	1	0	0	3	3	6.12	6.67	6.45	7.87	6.77	21	10	8	0	2.59	
10	20	12	31	7	17	18	30	7	13	4.70	3.90	3.90	6.10	4.65	16	15	13	0	6.10	
21	48	6	10	17	42	41	64	17	38	4.19	4.32	3.12	5.03	4.16	13	18	13	0	3.01	

MONTH OF MAY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
St. Louis Arsenal......	55.87	67.41	77.71	66.64	66.79	92	36	25.21	30.79	1	2	15	21	14	31
Dearbornville Arsenal..	46.11	61.15	67.26	55.20	56.68	84	34	27.32	22.68	3	6	8	25	31	89
Detroit Barracks.......	45.80	57.16	62.64	51.51	54.35	82	24	27.65	30.35	6	13	38	119	7	27
Fort Gratiot...........	42.22	50.45	57.88	45.90	50.00	81	28	31.00	22.00	5	21	42	127	1	1
Fort Mackinac.........	40.16	48.93	48.61	45.29	44.38	62	29	15.62	15.38	10	23	9	20	44	141
Fort Brady.............	34.90	47.20	54.30	41.25	44.60	70	22	15.40	22.60	7	31	3	6	26	64
Fort Winnebago.......	42.96	54.38	63.54	52.19	53.22	79	29	25.78	22.22	5	9	12	47	9	30
Fort Atkinson	45.64	56.09	64.51	52.32	55.08	80	29	24.92	26.08	16	26	16	33	11	28
Fort Crawford.........	47.20	57.80	67.27	58.29	56.22	81	32	24.78	24.22	1	1	5	5	2	2
Fort Snelling..........	44.00	58.00	60.54	52.48	52.25	72	27	19.75	25.25	14	28	12	23	16	53
Fort Leavenworth	52.74	62.41	68.19	59.70	60.40	86	40	25.60	20.40	3	8	12	41	14	33
Fort Croghan..........	44.61	59.06	68.58	55.22	58.22	90	32	31.78	26.22	2	7	9	21	25	55

MONTH OF MAY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
31	60	7	11	20	33	26	45	7	8	4.00	5.00	3.00	2.00	3.50	11	20	7	0	4.95	
9	16	17	40	12	33	34	109	6	16	2.23	2.24	3.50	4.22	3.05	8	23	11	0	2.83	
5	9	4	13	29	86	8	28	22	89	2.77	2.29	2.70	3.77	2.88	7	24	13	0	3.16	
16	39	16	59	16	55	8	19	12	21	3.80	4.20	4.40	3.30	3.92	8	23	9	1	1.68	
3	9	3	6	3	13	20	65	32	110	4.84	4.26	4.49	5.03	4.65	12	19	6	1	....	Temp. in error at 9
16	51	8	22	7	23	25	70	29	106	5.10	4.30	4.80	5.30	4.87	14	17	9	2	2.42	[a. m.
12	30	5	17	10	33	15	70	23	80	5.83	5.19	5.19	5.67	5.47	17	14	11	1	4.18	
5	12	13	38	7	15	3	8	48	120	4.96	4.32	4.93	4.83	4.78	16	15	9	0	....	
21	52	2	2	43	67	6	13	43	76	6.00	5.11	5.23	6.90	5.60	19	12	10	0	2.82	
12	27	17	42	10	24	3	8	20	52	4.83	6.00	4.58	7.32	5.68	19	12	11	1	3.12	Temp. in error at 9
18	62	26	66	5	15	22	56	11	41	4.45	4.58	5.54	5.64	5.02	18	13	7	0	2.29	[a. m.
18	54	27	53	14	39	6	15	23	59	4.77	4.09	3.77	6.00	4.66	14	17	11	2	....	

MONTH OF JUNE, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	50.83	60.96	73.73	54.46	62.10	90	34	27.90	28.10	12	32	0	0	0	0
Fort Fairfield	40.83	60.70	67.90	55.13	57.96	86	32	28.04	25.96	0	0	3	13	2	2
Hancock Barracks	49.77	60.00	69.00	58.00	59.38	89	35	29.62	24.38	11	29	8	14	11	29
Fort Sullivan	49.47	56.47	64.70	53.10	57.08	84	40	26.92	17.08	0	0	0	0	0	0
Fort Preble	52.06	59.00	64.66	56.61	58.36	87	33	28.64	25.36	5	18	5	12	11	15
Fort Constitution	54.26	61.76	68.00	60.10	61.23	91	36	29.77	25.23	3	5	15	31	6	10
Watertown Arsenal	54.96	68.93	73.63	61.90	64.30	91	30	26.70	32.30	4	5	7	19	4	6
Fort Adams	58.83	63.40	73.73	62.40	65.28	89	44	23.72	21.28	11	35	4	8	2	7
Fort Trumbull	54.56	67.76	72.73	60.23	63.65	87	33	23.35	30.65	7	19	7	20	6	19
Fort Columbus	64.60	71.33	77.56	66.76	71.25	93	42	21.75	29.25	4	4	5	5	0	0
Fort Hamilton	62.20	68.00	74.60	67.20	68.40	94	42	25.60	26.40	5	14	6	15	5	13
West Point	62.00	69.66	80.00	66.66	71.00	90	46	19.00	25.00	3	5	0	0	0	0
Watervliet Arsenal	57.90	65.90	74.40	61.30	66.15	92	40	25.85	26.15	0	0	0	0	2	2
Plattsburg Barracks	58.30	63.53	72.53	60.20	65.41	84	40	18.59	15.41	1	3	2	3	0	0
Madison Barracks	54.10	62.90	64.16	57.24	59.23	82	38	12.77	21.23	1	5	9	26	4	11
Fort Ontario	53.73	61.66	64.53	59.10	59.06	80	40	20.94	19.06	3	4	7	16	4	6
Fort Niagara	54.56	63.63	68.06	59.76	61.31	85	37	23.69	24.31	0	0	21	53	4	8
Buffalo Barracks	54.11	65.07	72.17	63.11	63.04	89	36	25.96	27.04	8	18	8	22	2	2
Alleghany Arsenal	58.66	66.86	76.67	64.66	68.10	90	33	21.90	35.10	9	15	5	7	8	9
Carlisle Barracks	58.50	66.40	79.20	65.90	68.85	90	30	21.15	38.85	0	0	1	1	6	18
Fort Mifflin	61.96	75.63	78.90	67.36	70.43	90	36	19.57	34.43	4	7	8	11	3	4
Fort McHenry	69.10	71.17	76.13	67.10	72.61	85	52	12.49	20.61	3	3	5	8	6	11
Fort Severn	66.13	75.56	78.53	70.03	72.13	90	46	17.87	26.13	5	19	8	21	1	1
Fort Monroe	68.21	74.21	82.22	71.20	75.29	97	54	21.71	21.29	1	1	15	40	20	58
Fort Macon	70.40	76.40	81.50	76.30	75.95	86	61	10.05	14.95	1	3	27	100	1	1
Fort Johnston	70.00	76.00	83.00	76.00	76.50	88	63	11.50	13.50	2	..	18	..	4	..
Augusta Arsenal	71.31	80.40	85.80	77.06	78.23	92	61	14.77	17.23	3	3	3	8	6	13
Fort Moultrie	76.03	77.95	80.10	77.71	78.06	84	71	6.94	7.06	4	13	0	0	38	124
Oglethorpe Barracks	72.86	79.20	85.00	77.36	78.96	92	62	14.04	16.94	4	8	14	38	5	10
Fort Marion	72.07	79.01	82.03	76.08	77.05	88	62	10.95	15.05	0	0	36	48	0	0
Fort Shannon	71.56	82.60	87.16	77.90	79.08	96	58	16.92	21.08	1	3	31	60	25	30
Key West	79.30	87.87	88.76	80.70	84.02	93	76	8.98	18.02	0	0	13	42	19	80
Fort Brooke	71.30	79.90	81.80	76.20	76.55	88	59	11.45	17.55	7	10	20	40	16	26
Camp Barrancas	77.40	80.40	82.33	78.13	79.86	88	72	8.14	7.86	3	4	12	23	10	24
Fort Morgan	78.60	80.33	82.00	79.50	80.08	85	74	4.92	6.08	11	23	16	45	9	23
Mount Vernon Arsenal	70.43	79.26	82.43	73.56	76.66	92	62	25.34	14.66	0	0	25	39	1	1
Fort Pike	74.70	83.20	85.50	78.05	80.10	93	64	12.90	16.10	2	2	15	33	10	25
Fort Wood	72.50	82.54	83.58	77.00	78.24	91	62	13.76	16.24	14	15	4	6	17	27
New Orleans	75.50	79.48	81.50	79.28	78.50	87	71	8.50	7.50	0	0	11	13	7	19
Baton Rouge	72.76	80.16	86.73	77.90	79.74	95	62	15.26	17.74	3	4	3	4	52	88
Fort Jesup	69.53	77.20	85.63	76.86	77.30	96	56	18.70	21.30	7	7	7	8	7	11
Fort Washita	68.10	75.10	85.20	74.50	76.70	94	52	17.30	24.70	3	8	2	3	1	1
Fort Towson	68.10	76.30	82.20	74.50	75.10	90	56	15.90	19.10	4	6	15	21	19	31
Fort Gibson	66.53	72.23	81.13	72.10	74.38	91	51	16.62	23.38	4	4	30	37	11	15
Fort Smith	62.40	77.30	86.80	69.40	74.50	98	50	23.50	24.50	0	0	7	17	10	17
Fort Scott	62.40	71.90	81.50	67.90	71.95	89	51	27.05	20.95	4	8	3	6	8	11
Jefferson Barracks	66.36	74.36	79.36	71.40	72.86	90	50	17.14	22.86	3	6	3	4	8	16

MONTH OF JUNE, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	8	29	44	12	25	51	110	12	32	2.73	4.06	3.93	2.06	3.19	6	24	10	0	....	
8	20	26	64	38	108	32	91	11	38	4.00	3.66	4.26	3.96	3.97	12	18	15	0	....	
9	25	25	82	24	82	13	40	15	51	4.00	4.00	4.00	3.00	3.75	13	17	12	0	2.37	
27	62	11	14	44	141	15	41	22	69	5.80	6.03	5.40	5.70	5.98	17	13	7	0	1.55	
18	24	31	47	29	44	10	21	11	28	4.53	4.83	5.13	4.53	4.75	16	14	8	0	4.79	
2	5	34	57	22	50	12	18	19	52	5.13	5.60	5.30	5.36	5.34	18	12	8	0	6.52	
8	18	4	11	49	134	20	45	16	35	7.29	7.08	5.82	8.04	7.53	18	12	12	0	4.50	
24	78	23	61	37	142	6	14	7	15	5.30	6.56	6.40	4.66	5.73	20	10	8	0	2.05	
9	20	4	11	47	147	3	6	33	87	4.66	5.87	5.96	5.56	5.41	17	13	7	0	2.47	
18	24	10	17	50	53	9	9	24	28	6.96	7.86	8.16	8.00	7.74	21	5	9	0	0.76	Therm. protected.
3	4	16	19	37	80	17	57	9	28	6.70	5.90	6.20	8.20	6.57	18	12	4	0	1.67	Therm. protected.
11	18	19	26	10	16	2	3	27	52	6.33	6.00	5.33	6.66	6.08	21	9	7	0	1.95	
8	17	64	212	3	8	32	95	9	33	6.20	6.33	6.03	4.30	5.73	14	16	9	0	6.05	
22	56	7	23	35	90	1	3	52	99	2.63	3.66	5.40	2.56	3.56	19	11	13	0	5.48	
9	24	26	94	41	144	18	48	4	13	4.27	4.12	4.29	4.21	4.22	15	15	11	0	4.70	
4	5	17	30	21	42	49	73	10	17	4.20	4.30	4.60	4.86	4.49	15	15	15	0	....	
5	11	15	30	37	85	9	19	23	60	4.10	4.83	6.16	4.16	4.70	14	16	13	0	5.67	
1	3	5	14	72	230	3	7	10	23	4.60	3.10	4.23	5.26	4.30	15	15	16	1	2.86	
4	4	1	4	19	60	23	69	13	38	3.79	5.35	5.13	7.83	8.42	21	9	10	0	3.83	
10	12	24	34	28	39	39	62	9	24	6.50	6.60	6.20	8.40	6.47	22	8	8	0	....	
21	49	6	15	51	145	10	17	15	28	5.76	7.20	7.03	6.40	6.59	20	10	7	0	1.74	
12	31	9	27	44	122	17	33	17	32	6.10	7.00	7.20	7.00	6.82	21	9	9	0	0.90	Therm. protected
23	78	33	113	16	48	6	14	20	68	5.23	5.56	6.20	6.90	5.47	22	8	8	0	1.24	
14	27	4	6	52	127	7	16	6	14	3.26	3.26	5.16	6.80	4.62	17	13	9	0	2.20	
6	16	15	39	60	198	6	25	3	10	5.40	5.40	6.00	6.60	5.85	24	6	10	0	11.22	
0	..	7	..	16	..	0	..	0	..	5.00	7.00	8.00	6.00	6.50	23	7	..	..	....	Defective.
14	31	49	81	35	45	1	1	12	18	4.23	4.70	4.56	4.30	4.49	16	14	15	0	....	
16	46	22	85	17	64	20	66	1	4	4.73	5.26	5.53	5.40	5.23	21	9	9	0	3.24	
31	81	33	58	21	55	4	7	0	0	4.70	5.00	3.90	4.30	4.97	18	12	12	0	5.69	
45	67	3	3	17	18	11	0	7	7	6.05	6.04	8.01	5.05	5.32	20	10	12	0	....	
30	42	7	7	7	8	14	14	5	9	5.33	5.86	3.80	3.43	4.61	12	18	14	0	5.31	
78	251	5	10	2	3	0	0	3	6	4.37	4.53	4.93	6.10	5.03	16	14	11	0	1.85	
13	24	21	37	15	32	8	19	1	1	6.30	7.25	6.10	4.45	6.02	16	14	19	0	6.90	
48	136	8	13	31	72	0	0	5	7	3.63	4.33	3.93	3.76	3.91	13	17	10	0	13.04	
34	76	19	36	15	35	5	5	6	12	4.66	4.83	5.50	6.01	5.20	15	15	9	0	3.49	Therm. protected
42	68	0	0	34	43	0	0	14	19	5.43	4.77	4.53	5.23	4.99	17	13	16	0	16.67	
37	80	15	33	14	38	20	37	5	12	5.55	4.90	4.70	5.90	5.26	17	13	15	0	29.56	
2	2	60	89	3	4	10	19	1	1	4.80	4.22	4.00	5.40	4.60	18	12	15	0	18.24	
38	78	12	26	33	56	7	18	4	3	4.00	4.01	3.92	4.64	4.14	12	18	10	0	14.57	
10	18	27	45	4	7	7	9	4	6	5.10	5.16	4.63	5.60	5.12	19	11	17	0	7.62	
4	5	80	93	8	11	0	0	3	4	6.00	5.50	8.66	5.73	5.72	13	17	13	0	3.30	
39	61	1	1	60	138	0	0	15	20	6.10	5.90	6.60	8.40	6.75	24	6	6	0	....	
28	53	8	12	3	4	1	1	8	15	5.70	4.20	5.90	8.00	5.95	18	12	7	0	1.91	
67	86	7	19	0	0	0	0	0	0	7.40	7.90	7.83	8.00	7.73	23	7	10	0	6.80	
16	35	8	20	9	28	5	6	8	20	5.50	5.90	6.50	8.40	6.57	22	8	10	0	3.32	
40	86	29	71	18	33	5	6	6	11	4.70	5.10	4.80	6.10	5.17	17	13	15	0	8.46	
31	69	5	14	21	52	36	59	11	22	6.03	5.50	4.06	7.00	5.64	21	9	8	0	2.12	

MONTH OF JUNE, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
St. Louis Arsenal......	63.90	76.76	85.70	72.53	74.80	98	54	23.20	20.80	10	11	9	9	21	25
Dearbornville Arsenal..	54.56	69.40	78.56	63.10	66.56	94	37	27.44	29.56	2	5	24	70	10	31
Detroit Barracks.......	55.66	66.33	72.33	61.33	64.33	94	37	29.67	27.33	9	16	19	53	13	36
Fort Gratiot...........	51.83	63.56	69.09	57.46	60.46	91	34	30.54	26.46	4	15	32	78	6	10
Fort Mackinac..........	51.43	56.00	59.18	55.40	56.56	74	35	17.44	21.56	10	22	8	11	33	102
Fort Brady.............	45.16	57.30	66.60	52.26	55.60	86	30	30.40	25.60	5	9	7	20	25	63
Fort Winnebago.......	54.13	66.76	74.40	61.50	64.26	89	36	24.74	28.26	8	21	6	14	6	10
Fort Atkinson.........	57.70	68.50	74.93	63.20	66.31	90	42	23.69	24.31	3	4	8	10	1	1
Fort Crawford.........	60.10	68.16	75.10	66.00	67.16	91	41	23.84	26.16	0	0	4	8	0	0
Fort Snelling..........	55.70	65.03	69.93	62.00	62.98	89	35	26.02	27.98	9	25	12	32	0	0
Fort Leavenworth......	63.60	71.30	76.70	71.20	70.50	88	54	17.50	16.50	6	11	5	14	14	30
Fort Croghan..........	58.90	69.63	78.23	65.96	68.25	92	40	23.75	28.25	7	10	4	15	17	36

MONTH OF JUNE, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	21	22	33	14	16	22	39	5	8	6.00	7.00	6.00	5.00	6.00	22	8	5	0	3.53	
4	11	23	52	24	84	23	65	10	33	2.36	2.86	3.20	4.30	3.18	10	20	16	0	5.03	
8	21	32	94	17	56	12	38	8	27	2.56	2.50	3.10	4.46	3.15	11	19	14	0	5.36	
25	71	17	44	19	56	3	8	7	11	2.83	4.13	4.53	3.80	3.80	15	15	18	1	4.06	
2	6	6	13	1	4	18	62	38	95	4.36	5.00	4.40	4.90	4.66	21	9	8	1	....	Therm. protected.
11	31	7	29	16	47	23	49	14	54	4.20	4.06	4.70	5.00	4.49	13	17	12	1	3.14	
7	15	32	71	10	39	11	41	19	55	4.86	3.90	4.86	4.90	4.63	16	14	11	0	4.07	
10	26	22	63	15	32	5	12	49	78	4.33	4.20	4.10	5.80	4.60	14	16	10	0	....	
20	45	22	33	29	48	1	1	42	64	4.18	6.00	5.27	6.20	5.41	19	11	11	0	3.10	
14	30	31	94	19	38	3	6	16	39	3.70	3.40	4.20	5.00	4.70	13	17	14	0	5.22	Therm. in error at 9
19	60	32	25	18	77	9	17	8	19	4.40	5.10	5.10	6.30	5.22	18	12	13	0	0.52	[p. m.
29	72	42	141	7	14	12	29	2	8	3.86	4.20	4.80	6.10	4.74	13	17	11	0	....	

MONTH OF JULY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Fort Kent	53.97	63.38	75.00	56.25	64.47	96	46	31.53	18.47	1	1	0	0	0	0
Fort Fairfield	50.64	62.64	69.67	57.51	60.16	82	38	21.84	22.16	0	0	0	0	0	0
Hancock Barracks	53.59	63.00	70.50	60.50	62.00	80	44	18.00	18.00	9	24	4	5	0	0
Fort Sullivan	53.67	59.25	68.90	56.77	61.28	89	48	27.72	13.28	0	0	0	0	0	0
Fort Preble	57.19	66.10	68.60	61.19	62.89	78	48	15.11	14.89	4	6	4	9	3	5
Fort Constitution	58.45	67.22	72.25	62.41	65.41	85	48	19.59	17.41	3	4	5	10	3	3
Watertown Arsenal	58.03	73.09	79.51	66.38	68.45	89	52	16.10	20.90	0	0	0	0	3	4
Fort Adams	64.70	74.35	81.76	71.01	73.22	86	60	12.78	13.22	19	54	5	7	12	22
Fort Trumbull	57.35	71.77	78.00	65.54	67.67	92	44	24.33	23.67	10	27	13	33	0	0
Fort Columbus	66.93	74.10	81.30	69.55	74.11	93	57	18.89	17.11	8	9	21	21	0	0
Fort Hamilton	64.50	72.22	79.30	71.90	71.90	92	59	20.10	12.90	9	32	24	52	5	7
West Point	68.06	73.67	81.38	72.77	74.96	90	59	15.06	15.94	6	8	4	6	0	0
Watervleit Arsenal	66.20	74.00	79.60	69.25	72.90	89	52	16.10	20.90	0	0	0	0	3	4
Plattsburg Barracks	62.41	70.90	75.90	63.16	69.16	89	54	19.84	15.16	0	0	8	17	4	8
Madison Barracks	59.13	66.29	71.24	64.21	66.20	88	45	21.80	21.20	2	5	2	7	3	11
Fort Ontario	61.32	67.90	71.50	63.80	66.09	90	52	23.91	14.09	5	5	14	28	6	13
Fort Niagara	62.38	72.51	75.03	66.41	68.70	87	51	18.30	17.70	4	11	18	45	5	10
Buffalo Barracks	61.00	68.90	78.29	65.12	69.20	88	46	18.80	23.20	6	18	5	13	1	1
Alleghany Arsenal	64.32	73.70	79.32	72.19	72.38	97	50	24.62	22.56	13	23	6	13	0	0
Carlisle Barracks	63.30	75.30	82.10	69.80	72.70	96	50	23.30	22.70	4	6	4	9	15	17
Fort Mifflin	65.45	78.94	81.96	69.93	73.70	98	52	24.30	21.70	3	6	21	47	5	10
Fort McHenry	73.42	75.21	79.12	75.16	75.73	92	65	15.88	11.12	15	36	11	18	5	11
Fort Severn	70.93	79.03	80.51	73.35	75.66	94	64	18.36	11.64	15	53	9	35	3	8
Fort Monroe	74.14	77.19	82.36	76.18	78.19	93	68	14.81	10.19	1	1	26	63	24	58
Fort Macon	75.10	80.80	85.00	80.50	80.05	90	69	9.95	11.05	10	34	19	52	3	5
Fort Johnston	79.00	87.00	86.00	80.00	82.50	94	65	11.50	17.50	4	4	12	12	9	9
Augusta Arsenal	78.32	84.48	87.93	82.93	82.96	97	70	14.04	12.96	6	6	18	27	5	15
Fort Moultrie	79.01	81.27	83.93	80.93	81.47	89	74	7.53	7.47	3	6	8	15	16	42
Oglethorpe Barracks	75.60	81.90	88.40	80.40	82.20	96	72	13.80	10.20	6	13	12	27	7	21
Fort Marion	71.03	81.05	85.03	78.09	80.01	93	72	12.99	8.01	0	0	27	33	0	0
Fort Shannon	73.93	88.80	83.70	78.42	80.30	99	69	18.70	11.30	3	2	28	43	21	23
Key West	80.06	90.10	90.42	82.13	85.24	96	76	10.76	9.24	6	13	15	53	33	132
Fort Brooke	73.20	80.10	81.15	76.80	77.35	88	70	10.65	7.35	0	0	9	15	21	39
Mount Vernon Arsenal	73.96	82.93	86.40	77.16	80.32	94	71	13.68	9.32	0	0	18	20	0	0
Camp Barrancas	78.12	83.93	85.80	81.54	81.96	90	74	8.04	7.96	3	6	36	72	5	13
Fort Pike	77.50	86.20	87.20	80.80	82.35	94	74	11.65	8.35	2	2	30	41	15	23
Fort Wood	76.30	86.10	86.23	79.56	81.45	94	73	12.55	8.45	28	33	4	4	24	28
Pass Christian	77.01	82.71	86.52	81.01	81.76	92	72	10.24	9.76	4	5	13	19	5	7
Baton Rouge	75.29	82.22	88.90	80.19	82.09	94	72	11.90	10.10	4	7	10	17	47	83
Fort Jesup	73.98	81.87	89.74	81.42	81.75	99	70	17.25	11.75	17	35	10	24	8	19
Fort Washita	71.50	79.70	89.10	76.50	80.30	100	62	19.70	18.30	1	2	40	63	2	2
Fort Towson	71.50	80.69	86.50	78.70	78.80	93	59	14.20	19.80	22	30	13	18	10	15
Fort Smith	68.19	83.35	89.93	71.83	78.79	96	54	17.21	24.79	3	9	15	27	7	17
Fort Gibson	69.77	78.00	87.38	75.33	76.83	94	58	17.17	18.83	3	14	25	31	17	22
Fort Scott	64.70	77.60	86.20	73.20	75.45	94	53	18.55	22.45	8	15	24	40	14	20
Jefferson Barracks	72.54	76.25	80.58	76.29	76.58	91	64	14.42	12.58	12	17	15	27	5	5
St. Louis Arsenal	69.45	79.80	90.22	75.70	79.83	100	52	20.17	27.83	16	22	17	19	21	24

MONTH OF JULY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	12	32	53	19	33	49	88	17	57	1.74	2.96	3.77	1.70	2.54	5	26	13	0	....	
1	6	16	43	43	83	31	66	33	90	3.35	4.38	4.45	4.70	4.22	12	19	14	0	....	
7	26	31	99	35	94	23	79	11	40	4.50	4.50	4.00	4.00	4.25	12	19	14	0	2.70	
17	32	14	24	53	157	35	72	3	7	6.29	6.80	6.81	5.54	6.36	20	11	15	0	3.83	
20	32	31	69	35	56	13	31	14	36	5.54	5.00	4.60	5.00	5.04	17	14	8	0	1.31	
5	8	30	65	18	40	31	54	23	66	6.77	6.83	6.06	5.96	6.40	23	8	6	0	1.70	
7	14	54	169	5	6	47	127	7	19	6.30	6.94	5.68	6.90	6.45	12	19	7	0	2.58	
14	42	2	6	13	50	14	60	31	116	6.54	6.51	5.80	5.70	6.13	24	7	7	0	2.88	Morning temp. in error.
6	15	11	21	36	123	9	23	37	99	5.61	6.61	6.06	4.64	5.73	17	14	10	0	2.51	
18	22	12	26	20	24	2	5	44	50	6.48	7.22	6.16	5.00	6.21	16	15	11	0	1.64	Therm. protected.
6	13	11	14	20	50	18	63	2	6	6.10	5.80	5.30	6.30	5.85	18	13	11	0	1.88	" "
6	14	13	28	10	18	4	6	35	67	6.36	5.90	5.12	5.77	5.78	21	10	6	0	3.00	" "
7	14	54	169	5	6	47	127	7	19	7.48	6.64	6.64	6.00	6.69	22	9	9	0	4.39	
23	69	2	8	28	99	0	0	58	150	2.51	4.32	6.06	3.22	4.03	24	7	12	0	5.09	Therm. protected.
15	59	24	69	59	231	10	43	15	60	5.18	5.18	6.40	5.28	5.51	20	11	8	0	2.79	
5	8	10	16	35	65	36	78	10	23	4.80	5.50	6.70	6.90	5.97	22	9	9	0	....	
6	13	2	6	33	82	26	57	29	94	5.03	6.22	6.67	5.32	5.81	21	10	9	0	4.23	Temp. in excess at 9 a. m.
0	0	3	10	7	21	81	291	17	60	5.26	5.50	5.14	6.90	5.70	23	8	9	0	3.77	
0	0	0	0	4	15	17	56	19	50	4.19	5.25	5.09	6.16	5.17	16	15	7	0	1.87	
11	12	12	18	22	26	34	47	12	19	6.60	5.70	5.90	7.20	6.35	23	8	8	0	....	
15	41	5	11	42	100	7	10	20	39	6.51	7.30	6.41	7.32	6.86	20	11	11	0	4.01	Temp. in ex., 9 a. m.
14	29	7	11	26	56	23	35	17	28	5.20	6.11	6.80	5.60	5.92	20	11	9	0	5.40	Therm. protected.
10	30	21	71	14	37	10	20	21	68	4.51	5.58	5.06	6.45	5.40	21	10	9	0	6.28	Temp. in ex., 9 a. m.
14	23	4	11	40	96	8	18	5	8	5.15	5.21	5.28	6.20	5.46	18	13	9	0	3.70	Therm. protected.
7	23	19	50	46	149	4	17	6	14	5.80	5.90	5.70	6.80	6.50	23	8	11	0	18.45	Rain in excess.
2	2	5	5	24	24	0	0	0	0	7.00	8.00	7.00	7.00	7.25	25	6	..	0	....	Defective.
8	10	12	23	49	61	5	7	19	23	6.67	6.35	5.32	6.06	6.10	22	9	9	0	....	
12	38	20	70	19	63	29	75	5	13	5.96	6.83	5.67	6.77	6.30	22	9	10	0	5.54	Therm. protected.
20	56	33	73	30	77	1	3	8	22	6.40	5.30	4.30	5.20	4.80	20	11	13	0	5.33	
37	37	0	0	27	27	11	11	8	19	8.00	6.04	5.03	7.03	6.52	23	8	15	0	....	
6	5	24	27	23	44	4	3	15	24	6.51	4.90	2.16	6.32	4.97	17	14	13	0	5.70	
58	162	7	15	0	0	0	0	5	15	5.11	6.06	5.68	6.90	5.94	27	4	8	0	1.20	
16	25	14	20	20	36	9	17	5	8	5.40	3.80	4.50	5.60	4.77	15	16	17	0	8.61	
46	79	0	0	32	48	3	8	23	41	7.32	5.60	4.35	7.29	6.14	26	5	15	0	6.11	
17	45	8	22	43	97	0	0	7	13	3.16	3.87	3.70	4.22	3.73	10	21	16	0	4.95	
12	22	6	15	20	52	18	50	19	49	5.70	4.90	4.10	5.20	4.97	16	15	17	0	18.22	
0	0	31	34	0	0	35	44	0	0	5.40	3.80	4.50	5.60	4.77	15	16	17	0	8.61	
52	111	13	20	13	29	8	20	16	28	3.93	4.59	4.00	4.61	4.28	13	18	15	0	8.70	
13	21	15	24	7	16	11	16	10	15	6.06	6.19	5.48	6.96	6.17	17	14	17	0	8.20	
11	19	77	114	1	2	0	0	0	0	6.12	7.74	7.06	6.12	7.01	18	13	10	0	7.66	
29	40	1	2	38	76	1	1	14	22	5.50	6.50	5.70	7.00	6.17	22	9	9	0	....	
14	27	10	21	7	12	5	7	5	7	5.50	5.50	4.40	6.50	5.47	16	15	9	0	4.40	
15	22	2	5	10	16	0	0	5	6	4.60	6.40	3.10	7.40	5.37	19	12	10	0	3.26	
78	93	0	0	0	0	0	0	0	0	7.38	8.64	7.83	8.80	8.16	26	5	3	0	2.30	
7	10	42	70	9	16	7	10	9	14	5.20	6.10	5.20	6.90	5.85	21	10	10	0	5.34	
15	18	7	7	6	9	34	35	8	10	6.54	6.35	6.06	6.32	6.30	21	10	9	0	2.60	
14	17	14	19	11	12	13	23	12	21	7.12	7.12	6.50	5.10	6.51	24	7	6	0	4.13	Temp. in ex., 3 p. m.

MONTH OF JULY, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Dearbornville Arsenal..	58.38	76.87	77.45	59.87	67.87	93	44	28.10	23.90	8	18	21	65	11	29
Detroit Barracks......	57.19	73.09	79.12	67.43	68.15	83	43	14.85	25.15	9	18	33	82	8	14
Fort Gratiot..........	53.48	68.41	78.52	60.45	66.00	91	40	25.00	26.00	0	0	40	120	3	4
Fort Mackinac	58.22	62.00	65.71	61.79	63.32	75	44	11.68	19.32	17	28	9	13	23	41
Fort Brady............	51.00	63.61	68.90	57.35	59.82	82	38	22.18	21.82	8	14	6	10	23	56
Fort Winnebago.......	58.64	74.16	82.61	68.61	79.59	94	43	23.41	27.59	17	21	5	15	4	9
Fort Atkinson	63.22	76.61	82.29	68.67	72.72	94	48	21.28	24.72	20	27	14	29	0	0
Fort Crawford	70.20	74.26	81.11	75.24	74.00	91	57	17.00	17.00	2	3	4	7	8	9
Fort Snelling	61.48	74.09	78.32	68.67	69.90	90	50	10.10	19.90	3	5	9	15	4	9
Fort Leavenworth......	68.72	74.00	80.80	74.48	74.46	90	67	15.54	7.46	5	5	19	29	7	11
Fort Croghan	62.96	76.90	84.58	69.29	73.77	93	50	19.23	23.77	7	10	16	37	24	60

MONTH OF JULY, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
17	38	8	16	15	46	27	82	17	53	3.77	4.45	3.54	5.93	4.42	14	17	6	0	2.11	
3	10	22	38	32	84	6	16	9	35	5.54	4.80	3.80	5.74	4.97	20	11	5	0	2.32	
10	16	10	22	40	93	0	0	17	38	5.05	6.00	5.40	4.20	5.12	22	9	10	0	2.08	
2	3	1	4	2	9	35	81	35	83	6.52	6.26	6.13	7.03	6.48	24	7	6	0	....	Therm. protected.
8	20	5	14	8	26	44	131	21	65	5.54	4.83	5.87	6.12	5.59	15	16	10	0	2.53	
0	0	9	18	8	25	18	56	25	81	6.54	6.38	6.22	6.03	6.29	26	5	8	0	1.20	
0	0	8	20	30	64	6	15	44	80	6.32	5.67	5.09	7.16	6.06	23	8	2	0	....	
13	20	3	4	39	67	2	2	50	90	8.40	8.21	8.15	8.19	8.23	23	8	4	0	2.20	Therm. protected.
5	8	29	51	24	52	14	26	17	33	6.05	5.87	5.41	7.41	6.20	18	13	5	0	2.09	Temp. in excess at 9
20	34	18	40	20	54	8	11	9	9	4.64	5.70	5.29	7.29	5.75	22	9	9	0	0.57	[a. m.
7	12	46	128	8	20	15	23	1	1	6.38	6.90	6.32	7.12	6.68	22	9	4	0	....	

MONTH OF AUGUST, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	55.58	66.58	81.83	59.22	68.70	95	42	26.30	26.70	10	13	1	4	0	0
Fort Fairfield	54.93	65.16	74.58	62.45	64.74	86	34	21.26	20.74	7	22	3	10	6	6
Hancock Barracks	57.00	65.00	72.50	63.00	64.75	82	41	17.25	23.75	27	65	13	44	4	9
Fort Sullivan	55.41	61.01	69.16	58.51	61.18	84	51	22.82	10.18	0	0	0	0	0	0
Fort Preble	61.45	67.19	69.32	64.37	65.38	78	54	12.62	11.38	5	19	12	35	3	5
Fort Constitution	62.12	68.74	71.87	64.48	67.00	83	56	16.00	11.00	2	2	29	72	3	5
Watertown Arsenal	62.61	73.35	77.00	66.93	69.80	92	54	22.20	15.80	9	16	12	26	21	38
Fort Adams	64.72	73.32	81.03	72.90	72.87	91	58	18.13	14.87	5	15	8	19	8	30
Fort Trumbull	60.00	71.93	78.06	67.93	69.03	85	50	15.97	19.03	7	19	11	38	2	6
Fort Columbus	68.71	73.13	79.84	72.22	74.27	90	64	15.73	10.27	3	3	31	31	2	2
Fort Hamilton	69.00	72.80	79.60	73.70	74.40	90	64	15.60	10.40	9	27	13	32	18	41
West Point	64.29	69.15	78.70	69.83	71.79	88	60	16.21	11.79	13	26	3	4	0	0
Watervliet Arsenal	63.00	69.30	80.20	67.80	71.60	90	50	18.40	21.60	4	7	0	0	0	0
Plattsburg Barracks	63.45	71.67	79.03	66.03	71.22	86	56	14.78	15.22	5	1	15	22	0	0
Madison Barracks	61.40	70.13	74.90	65.22	67.20	80	48	12.80	19.20	2	5	3	11	3	12
Fort Ontario	61.30	70.67	74.19	66.90	68.50	86	52	17.50	16.50	2	3	20	41	4	6
Fort Niagara	64.41	73.19	74.35	68.90	69.38	85	57	15.62	12.38	5	16	13	37	35	91
Buffalo Barracks	64.11	73.13	81.06	68.03	71.15	90	50	18.85	21.15	19	56	15	38	4	11
Alleghany Arsenal	62.80	69.00	80.32	67.62	71.25	91	53	19.75	18.25	12	15	14	20	3	7
Carlisle Barracks	63.20	76.60	81.90	68.90	72.05	89	52	16.95	20.05	13	18	0	0	26	32
Fort Mifflin	67.30	77.71	82.35	72.29	74.82	89	60	14.18	14.82	6	9	35	83	5	9
Fort McHenry	73.32	77.22	79.40	75.03	76.36	88	68	11.86	8.14	12	19	26	67	11	27
Fort Severn	70.16	78.00	79.29	74.06	75.11	87	64	11.89	11.11	21	61	7	28	3	11
Fort Monroe	74.23	77.20	80.14	76.25	77.18	84	69	6.82	8.18	1	1	18	45	29	75
Fort Macon	76.06	81.00	84.50	78.90	80.14	90	72	9.86	8.14	10	19	38	91	2	3
Fort Johnston	76.00	81.00	88.00	79.00	82.00	98	70	16.00	12.00	0	0	6	6	11	11
Augusta Arsenal	75.74	80.05	83.06	78.87	79.20	88	70	8.80	9.20	7	9	6	8	1	3
Fort Moultrie	77.83	79.93	83.14	80.58	80.43	87	71	6.57	9.43	14	23	15	46	40	126
Oglethorpe Barracks	75.16	81.12	87.10	79.87	81.13	96	72	14.87	9.13	10	17	17	42	20	49
Fort Marion	74.84	82.64	83.48	78.13	78.58	87	71	8.42	7.58	3	3	25	29	12	19
Fort Shannon	73.17	84.00	85.73	77.21	79.45	94	68	14.55	11.45	6	3	22	27	4	12
Key West	78.77	89.90	89.58	81.74	84.17	95	73	10.83	11.17	6	10	23	52	5	13
Fort Brooke	72.50	79.50	81.30	75.90	76.90	87	70	10.10	6.90	2	2	12	21	8	11
Camp Barrancas	76.77	82.45	82.25	79.87	80.12	88	70	7.88	10.12	3	8	54	112	4	11
Mount Vernon Arsenal	70.35	80.20	85.55	74.70	78.21	92	66	13.79	12.21	0	0	44	85	1	1
Fort Pike	75.00	84.05	87.90	79.90	81.45	94	66	12.55	15.45	12	21	34	59	14	26
Fort Wood	73.38	80.90	87.90	78.36	80.21	93	70	12.79	10.21	48	52	0	0	32	47
Pass Christian	74.58	84.03	85.45	78.96	80.00	92	68	12.00	12.00	1	1	12	17	30	33
Baton Rouge	72.50	81.90	88.50	78.70	80.50	94	66	13.50	14.50	31	49	13	22	43	59
Fort Jesup	69.50	76.20	84.50	78.40	76.25	94	61	17.75	15.25	21	21	22	31	7	8
Fort Washita	68.20	77.00	85.80	75.20	77.00	95	62	18.00	15.00	0	0	28	37	1	1
Fort Towson	67.50	78.00	83.20	75.10	75.95	89	58	13.05	17.95	19	27	24	31	14	21
Fort Smith	62.70	77.25	87.06	67.87	74.83	97	54	22.17	20.83	0	0	13	26	20	29
Fort Gibson	67.04	73.04	81.38	73.13	74.17	91	58	16.83	16.17	0	0	32	40	55	60
Fort Scott	60.70	74.70	85.10	73.00	73.40	93	55	19.60	18.40	7	10	28	40	17	22
Jefferson Barracks	69.12	73.00	80.00	74.87	74.56	89	60	14.44	14.56	10	10	16	16	12	21
St. Louis Arsenal	62.80	78.05	90.83	74.90	76.82	100	50	23.18	26.82	4	8	13	16	17	25

MONTH OF AUGUST, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	11	22	33	28	56	32	55	25	47	1.41	3.19	4.03	1.58	2.05	5	23	8	0	....	
2	3	14	28	38	67	25	33	29	58	2.45	4.45	4.29	4.90	4.02	14	17	9	0	....	
3	9	42	111	15	37	7	17	9	20	3.00	4.00	4.00	5.00	4.00	15	16	12	0	8.92	
24	57	21	24	34	99	35	109	5	21	3.70	5.16	6.00	3.32	4.54	17	14	4	0	3.75	
23	38	25	44	44	63	4	5	8	19	2.83	3.19	3.35	5.00	3.59	10	21	4	0	6.30	Therm. protected.
7	10	33	67	8	13	24	38	7	20	3.06	4.12	4.45	5.00	4.15	13	18	9	0	7.16	
7	14	5	8	34	58	21	33	10	23	6.10	5.18	5.64	7.76	6.17	9	22	13	0	8.00	
11	30	25	72	10	30	18	58	17	68	3.83	4.80	5.58	4.54	4.68	14	17	12	0	9.12	
13	36	9	22	31	63	9	15	32	66	3.29	4.22	4.77	5.29	4.33	12	19	9	0	10.14	
14	24	3	5	20	20	7	7	36	56	3.84	5.84	7.00	4.65	5.50	11	20	9	0	15.26	
7	14	13	20	17	39	14	40	6	18	4.70	4.60	5.50	5.90	5.17	15	16	8	0	14.05	
5	13	6	11	3	3	0	0	26	36	4.32	3.87	4.61	4.93	4.43	13	18	10	0	11.33	
2	2	65	169	5	7	24	45	18	34	3.38	3.51	3.61	2.38	3.22	11	20	13	0	7.02	
24	58	1	1	28	59	1	3	51	93	2.48	3.77	5.16	2.12	3.38	21	10	12	0	5.22	
26	88	21	74	55	181	6	22	7	31	3.19	4.18	5.30	3.40	4.10	19	12	8	0	1.85	
7	12	22	38	33	53	20	35	11	14	3.03	5.03	6.01	6.08	5.04	18	13	10	0	....	
16	36	9	17	25	64	14	40	7	19	1.83	4.74	4.64	5.83	3.97	15	16	5	0	1.49	Therm. protected.
6	16	3	8	48	150	11	30	9	23	5.60	5.11	5.00	6.12	5.45	18	13	4	0	2.90	
0	0	2	5	10	24	7	16	8	11	2.32	4.77	4.19	6.16	4.36	16	15	9	0	2.32	
6	6	11	14	4	4	23	25	14	14	5.30	4.30	5.40	6.60	5.40	19	12	10	0	....	
18	38	9	17	30	57	4	10	16	25	4.80	6.26	6.60	6.26	5.98	18	13	13	0	6.03	
11	32	6	14	20	44	14	21	21	46	4.80	4.17	5.22	4.20	4.59	14	17	11	0	7.82	Therm. protected.
29	88	13	39	7	16	4	8	28	90	3.48	4.51	4.64	5.90	4.63	17	14	10	0	5.99	Temp. in error at 9
17	31	10	17	21	48	10	16	13	23	4.40	4.40	3.27	4.19	4.01	14	17	13	0	8.60	[a. m.
19	45	19	53	15	51	6	20	9	21	5.90	5.70	5.40	7.90	6.25	24	7	15	0	18.15	Rain in excess.
25	25	3	3	19	19	0	0	0	0	5.00	6.00	7.00	7.00	6.25	24	7	..	0	....	Inaccurate.
19	23	29	29	34	34	6	6	22	28	4.45	5.00	5.25	5.19	4.97	19	12	10	0	....	
14	43	6	23	7	27	19	52	0	0	4.87	5.32	5.45	6.19	5.45	22	9	12	0	7.76	
25	60	11	24	19	49	10	25	2	5	4.80	4.22	3.52	5.96	4.62	21	10	18	0	7.16	
40	44	0	0	31	31	4	4	0	0	6.48	6.00	4.96	7.12	6.14	23	8	10	0	....	
9	10	21	28	22	25	2	8	6	3	5.86	4.08	1.91	5.13	4.25	13	10	16	0	5.18	First 23 days.
67	222	5	12	6	5	1	3	11	16	6.10	5.65	5.68	6.97	6.10	25	6	14	0	2.99	
34	53	23	34	17	22	0	0	10	13	8.20	8.60	6.50	7.20	7.62	24	7	24	0	6.60	
8	23	4	10	32	101	3	7	15	27	4.09	4.93	4.38	5.41	4.70	14	17	15	0	7.04	
22	28	0	0	24	43	0	0	29	50	7.00	6.40	4.50	7.00	6.22	23	8	10	0	2.18	
25	30	4	11	8	16	14	35	15	30	6.40	6.40	4.90	7.20	6.22	23	8	7	0	6.01	
0	0	29	36	0	0	14	15	0	0	6.90	6.00	5.50	6.30	6.17	23	8	8	0	2.04	
29	58	15	28	10	24	18	19	9	10	5.68	6.28	4.80	5.87	5.66	19	12	7	0	2.39	
6	10	5	9	0	0	6	8	5	10	6.22	7.77	6.41	6.32	6.68	23	8	7	0	2.57	
7	7	22	28	12	14	6	7	16	25	8.90	8.90	7.50	8.00	8.32	23	8	5	0	1.34	
38	68	1	4	41	77	1	2	13	25	4.80	6.00	6.20	7.40	6.10	24	7	5	0	0.60	
15	22	1	1	2	2	2	3	9	12	5.83	5.67	5.00	7.61	6.02	18	13	9	0	5.72	
10	14	0	0	18	28	1	1	5	11	5.00	5.60	5.40	8.80	6.20	20	11	5	0	2.37	
37	43	0	0	1	1	0	0	1	1	5.48	5.56	7.09	8.25	6.59	22	9	5	0	8.18	
15	35	30	52	14	26	8	16	1	2	4.70	5.30	4.90	6.40	5.30	20	11	7	0	3.30	
21	25	7	11	0	0	8	11	37	39	7.06	6.76	5.67	7.77	6.81	23	8	6	0	0.97	
22	34	10	13	14	17	24	31	16	20	7.00	8.00	7.00	5.00	6.75	28	3	3	0	0.76	Temp. in ex., 3 p. m.

MONTH OF AUGUST, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Detroit Barracks	58.48	73.83	80.13	66.64	66.08	88	49	21.92	17.08	5	7	33	79	22	38
Fort Gratiot	56.45	70.32	79.15	65.00	67.81	88	43	20.19	24.81	2	6	29	77	8	13
Fort Mackinac	60.48	71.72	69.48	64.03	64.98	80	51	15.58	13.42	5	6	9	14	42	70
Fort Brady	52.41	65.58	73.45	60.35	62.93	80	39	17.07	23.93	14	29	0	0	22	42
Fort Winnebago	55.61	70.54	78.48	64.12	67.04	88	42	20.96	25.04	7	14	7	12	4	12
Fort Atkinson	58.12	71.51	76.19	63.77	67.17	84	48	16.83	19.17	4	4	17	29	3	3
Fort Crawford	65.22	70.00	76.11	71.30	71.10	86	52	14.90	19.10	1	2	10	10	2	3
Fort Snelling	58.76	70.70	74.38	65.74	66.56	81	61	14.44	5.56	0	0	4	6	0	0
Fort Leavenworth	65.38	72.32	79.12	72.96	72.25	89	59	16.75	13.25	13	23	12	17	5	9
Fort Croghan	59.83	71.51	79.12	65.48	69.46	86	50	16.54	19.46	4	5	10	12	30	56

MONTH OF AUGUST, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
13	25	25	41	15	26	7	8	3	10	4.41	4.90	3.90	6.87	5.02	13	18	6	0	1.46	
34	46	11	21	20	37	6	8	7	10	3.00	5.50	5.00	4.10	4.40	16	15	12	0	1.82	
2	4	2	4	2	3	54	90	7	9	5.87	6.58	5.96	7.09	4.92	22	9	4	0	....	Morning temp. in excess.
15	32	19	30	6	17	23	44	25	67	5.70	5.64	5.32	6.64	5.82	20	11	3	0	0.41	
4	12	12	29	4	6	14	32	9	23	5.06	4.64	3.93	5.38	4.75	15	16	8	0	1.22	
0	0	20	31	23	34	24	34	24	35	5.76	6.12	5.06	6.74	5.90	18	13	10	0	....	Temp. in excess at 9 a. m.
18	25	12	15	29	37	5	7	48	81	4.30	6.21	4.17	6.17	5.21	18	13	9	0	4.13	
8	25	59	114	11	16	4	6	14	27	5.87	5.96	4.58	7.25	6.16	18	13	10	0	1.84	
23	36	21	53	16	48	1	1	14	25	3.74	6.96	6.03	7.58	6.07	17	14	7	0	0.13	
14	37	31	60	13	25	18	21	4	7	4.17	5.09	5.38	6.38	5.35	16	15	7	0	....	

MONTH OF SEPTEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	44.00	52.50	59.00	51.00	51.50	78	31	26.50	20.50	13	29	4	10	2	8
Fort Sullivan	48.60	53.96	64.33	53.83	56.48	76	34	19.52	22.48	0	0	0	0	0	0
Fort Preble	53.30	60.40	62.00	57.30	56.40	83	35	26.60	21.40	4	12	13	27	3	3
Fort Constitution	54.43	61.16	66.46	58.70	60.45	90	37	29.55	23.45	5	13	12	31	19	53
Watertown Arsenal	53.56	64.76	70.70	58.80	62.13	91	31	28.87	21.13	12	22	22	51	9	17
Fort Adams	58.06	63.04	71.33	64.06	64.69	84	44	19.31	20.69	9	37	9	51	11	25
Fort Trumbull	55.83	63.96	70.60	60.73	63.21	86	32	22.79	21.21	17	47	11	31	6	20
Fort Columbus	62.13	67.00	73.93	66.50	68.03	92	39	23.97	29.03	4	5	42	46	6	8
Fort Hamilton	63.20	65.80	73.70	67.10	68.45	90	42	21.55	26.45	11	41	25	74	13	31
West Point	59.70	66.83	73.23	63.00	66.46	85	36	18.54	30.46	6	11	4	11	3	3
Watervliet Arsenal	55.20	62.50	77.10	62.60	66.15	92	33	25.85	33.15	1	1	4	8	2	7
Plattsburg Barracks	55.53	64.73	74.03	66.26	64.78	84	38	19.22	26.78	2	3	9	23	0	0
Madison Barracks	53.18	61.28	65.18	59.20	59.27	80	32	20.73	29.27	2	9	25	96	2	6
Fort Ontario	56.20	61.40	67.00	60.50	61.50	81	37	19.50	24.50	3	14	28	56	6	7
Fort Niagara	60.06	64.56	67.33	62.00	63.70	83	43	19.30	20.70	3	12	22	74	33	106
Buffalo Barracks	56.25	64.23	70.13	60.24	63.19	82	34	18.81	29.19	13	43	23	69	3	8
Alleghany Arsenal	59.83	65.56	76.70	64.16	66.84	90	44	23.16	22.84	10	14	17	35	1	2
Carlisle Barracks	60.10	68.50	75.70	63.00	67.90	89	34	21.10	33.90	9	10	2	2	34	41
Fort Mifflin	63.66	70.33	74.66	66.76	69.16	91	38	21.84	31.16	7	16	33	100	2	6
Fort McHenry	68.25	71.12	74.70	71.00	71.15	88	43	16.85	28.15	11	24	33	86	4	16
Fort Severn	66.56	72.16	74.46	69.53	70.40	90	49	19.60	21.40	22	86	12	46	3	10
Fort Monroe	72.23	75.12	79.03	74.23	75.28	91	56	15.72	19.28	1	4	19	46	25	102
Fort Macon	74.60	81.60	84.05	77.90	79.32	92	59	12.68	20.32	13	40	30	87	5	11
Fort Johnston	74.00	87.00	91.00	78.00	80.00	96	55	16.00	15.00	0	0	13	13	16	16
Augusta Arsenal	73.96	81.00	84.83	80.16	80.73	90	66	9.27	14.73	5	7	13	25	5	5
Fort Moultrie	77.95	80.03	83.76	80.98	80.85	88	67	7.15	13.85	16	26	13	35	27	87
Oglethorpe Barracks	74.73	81.66	88.93	80.00	81.83	94	70	12.17	11.82	5	9	20	46	8	21
Fort Marion	76.67	81.96	82.50	80.10	79.60	86	73	6.40	6.60	2	2	37	03	11	17
Key West	79.00	85.33	85.23	80.77	82.12	90	74	7.88	8.12	1	7	48	213	32	121
Fort Brooke	72.80	78.80	82.70	76.50	77.75	88	71	10.25	6.75	1	1	20	40	20	28
Camp Barrancas	77.80	84.20	87.26	81.33	82.53	90	74	7.47	8.53	8	14	14	24	12	38
Mount Vernon Arsenal	71.83	80.00	85.46	74.66	78.86	94	68	15.14	10.86	0	0	32	55	4	6
Fort Pike	72.80	83.90	86.40	72.50	79.80	94	72	14.20	7.80	3	6	26	50	20	35
Fort Wood	76.80	85.40	86.12	78.38	80.58	92	72	11.42	8.58	13	14	1	2	58	77
Pass Christian	75.47	81.16	83.27	79.60	80.00	90	71	10.00	9.00	0	0	16	14	26	34
Baton Rouge	72.10	79.30	88.10	74.30	80.10	95	66	14.90	14.10	0	0	5	12	92	87
Fort Jesup	73.20	77.60	83.90	76.70	78.60	93	61	14.40	17.60	2	2	14	16	24	34
Fort Washita	68.50	74.10	82.40	73.30	75.40	93	56	17.60	19.40	0	0	27	42	0	0
Fort Towson	70.70	75.90	81.60	76.00	76.15	89	60	12.85	16.15	0	0	30	32	32	37
Fort Smith	64.86	76.33	82.30	68.56	73.71	92	56	18.29	17.71	11	28	11	28	16	40
Fort Gibson	67.66	70.00	79.42	66.63	78.20	93	55	14.80	23.20	2	7	25	48	28	48
Fort Scott	61.50	70.50	79.90	66.70	70.70	98	44	27.30	26.70	10	20	17	31	19	38
Jefferson Barracks	67.06	70.36	75.06	70.06	70.00	87	55	17.00	15.00	6	9	12	20	10	17
St. Louis Arsenal	61.46	72.00	83.73	74.26	72.59	98	50	25.41	22.59	24	32	13	25	15	24
Detroit Barracks	57.40	66.13	72.56	62.10	65.48	90	36	24.52	29.48	3	3	33	79	22	38
Fort Gratiot	57.00	65.03	70.00	61.00	63.50	90	34	26.50	29.50	3	3	39	101	9	13
Fort Mackinac	54.66	61.23	59.40	56.23	57.70	72	34	14.30	23.70	4	12	13	34	39	114

MONTH OF SEPTEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	5	23	63	13	38	24	77	30	86	4.00	4.50	4.50	5.50	4.62	15	15	7	0	1.10	
32	83	6	9	32	74	18	34	32	109	5.76	5.77	5.56	4.36	5.36	16	14	3	0	0.95	
17	40	21	34	44	78	5	17	13	25	4.70	5.00	3.40	4.90	4.50	16	14	3	0	0.39	
2	9	16	33	17	49	12	26	36	94	5.56	6.00	5.46	5.20	5.55	20	10	4	0	0.43	
9	21	4	12	22	64	25	43	15	39	5.80	6.79	7.04	6.68	6.57	15	15	2	0	1.12	
1	2	12	25	8	26	18	59	41	207	4.70	4.83	5.33	5.10	4.99	16	14	7	0	1.96	
14	56	6	11	28	77	2	3	34	87	3.93	4.50	4.13	5.30	4.46	12	18	8	0	1.68	
5	24	1	1	25	40	8	9	29	48	5.90	6.83	7.17	3.80	5.92	10	20	6	0	3.06	
6	15	10	18	19	62	6	18	4	13	5.10	5.00	6.80	6.20	5.77	15	15	8	0	3.75	
12	29	10	14	4	7	1	1	26	47	4.23	5.06	4.86	5.66	4.95	17	13	8	0	3.62	
14	66	58	160	2	3	25	64	9	25	6.16	6.00	5.06	4.80	5.50	14	16	6	0	2.61	
27	90	6	22	38	105	1	2	25	66	2.53	4.93	6.33	2.86	4.16	24	6	7	0	4.47	
21	80	22	101	24	104	1	4	19	97	3.24	4.30	3.17	5.30	4.00	16	14	7	0	2.66	
22	44	10	20	31	55	10	15	6	14	4.00	4.30	4.80	6.30	4.80	17	13	8	0	....	
1	3	8	18	24	74	21	48	7	33	8.66	3.30	3.73	5.06	5.18	8	22	9	0	4.72	Temp. in error.
8	24	5	16	50	184	6	17	8	27	4.12	3.14	4.10	5.17	4.13	17	13	13	0	7.10	
1	1	1	4	8	24	14	38	8	14	1.96	3.40	3.00	5.76	3.53	11	19	13	0	6.44	
4	7	6	11	4	4	20	29	16	16	5.40	5.20	5.30	6.10	5.50	14	16	10	0	....	
8	20	3	11	39	83	5	10	23	52	5.23	6.33	6.60	5.16	5.83	16	14	9	0	4.95	
13	40	6	19	8	16	23	41	17	32	4.17	4.23	5.12	4.16	4.42	17	13	11	0	10.50	Morning temp. in ex-
11	40	20	63	13	22	6	13	21	64	3.86	4.96	4.36	5.36	4.63	17	13	8	0	10.37	[cess.
6	10	6	9	31	77	13	31	16	43	3.25	4.17	3.26	5.18	3.46	14	16	11	0	3.20	Morning temp. in ex.
11	29	6	13	27	82	7	17	13	46	6.50	6.10	5.70	7.10	6.37	22	8	7	0	10.17	Rain in execss.
9	9	12	12	15	15	0	0	2	2	5.00	5.00	6.00	6.00	5.50	24	6	..	..	....	Defective.
10	13	19	22	44	46	4	4	20	22	6.33	7.00	5.50	7.63	6.61	22	8	4	0	....	
8	35	13	52	9	24	20	58	2	6	6.60	6.40	6.10	6.90	6.50	23	7	6	0	5.39	Therm. protected.
19	57	15	37	12	25	4	6	7	14	6.40	5.83	5.20	6.46	5.92	21	9	9	0	1.54	
40	64	1	1	7	15	1	1	8	8	5.70	4.90	5.60	7.10	5.82	21	9	7	0	1.50	
39	123	1	2	0	0	0	0	2	6	5.67	5.13	5.83	7.43	6.01	22	8	17	0	4.65	
27	37	10	10	9	21	1	1	4	6	6.45	6.30	7.25	6.75	7.18	24	6	17	0	9.90	
30	93	9	29	36	128	6	9	15	27	3.76	4.40	4.36	5.46	4.49	10	20	12	0	5.87	
56	85	0	0	19	26	1	1	7	12	6.83	5.83	3.60	6.61	5.71	23	7	12	0	3.49	
33	82	10	26	9	23	3	4	12	19	5.30	4.50	3.70	6.70	5.05	19	11	15	0	15.26	
0	0	27	34	1	2	14	14	0	0	6.20	4.90	4.80	6.50	5.60	20	10	14	0	5.66	
39	100	17	34	10	20	10	9	2	6	5.16	5.26	4.20	6.20	5.20	16	14	16	0	11.19	
9	17	5	10	1	1	1	1	0	0	4.29	6.13	4.22	4.79	4.85	15	15	18	0	9.16	
31	36	33	33	7	10	3	3	2	2	3.60	4.60	5.00	7.30	5.12	10	20	19	0	2.64	
45	81	5	17	28	70	0	0	12	24	3.90	4.30	5.60	6.10	4.97	16	14	11	0	8.61	
30	35	2	2	2	3	4	7	12	14	4.90	4.26	4.76	6.86	5.19	13	17	11	0	4.40	
20	47	1	6	23	68	2	2	5	12	4.60	5.50	4.90	5.96	5.24	16	14	13	0	3.42	
62	98	1	7	0	0	0	0	0	0	3.56	3.46	5.63	5.70	5.08	18	12	9	0	2.11	
24	50	24	76	19	26	6	12	9	16	3.90	3.80	4.40	6.10	4.55	13	17	11	0	4.42	
36	55	11	25	15	28	7	17	9	15	2.76	3.16	3.56	5.33	3.70	12	18	12	0	5.76	Therm. protected.
12	24	13	20	12	23	20	38	11	23	5.00	6.00	4.00	4.00	4.75	19	11	7	0	2.02	Temp. in excess at 3
13	25	25	41	15	26	7	8	3	10	2.76	2.90	2.76	5.06	3.37	12	18	10	0	2.20	[p. m.
22	45	7	10	34	80	0	0	3	6	3.06	3.36	3.50	3.20	3.23	15	15	11	0	3.55	
11	27	8	22	6	15	28	72	11	28	4.56	4.96	4.46	4.93	4.72	11	19	3	0	....	Therm. protected.

MONTH OF SEPTEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	48.60	56.40	61.80	53.10	53.30	78	33	22.90	22.30	8	21	9	29	33	87
Fort Winnebago	53.96	61.13	69.73	58.56	61.83	90	36	18.17	25.83	23	52	6	13	9	23
Fort Atkinson	55.66	63.03	68.66	58.76	62.10	86	41	23.90	21.10	20	36	23	41	15	36
Fort Crawford	61.30	64.18	69.10	65.90	65.18	86	46	20.52	19.18	5	8	17	27	6	6
Fort Snelling	51.66	58.33	64.23	57.26	57.95	82	32	24.05	25.95	8	27	10	28	0	0
Fort Leavenworth	63.19	67.02	72.09	67.26	67.24	89	40	21.76	27.24	14	31	15	26	8	11
Fort Croghan	57.63	64.57	69.96	61.53	63.80	88	40	24.20	23.80	16	38	22	60	1	3

MONTH OF SEPTEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
22	57	6	13	5	23	3	9	28	101	3.50	3.50	3.70	4.90	3.90	11	19	13	0	3.00	
12	36	8	28	13	43	17	53	4	16	2.73	3.03	3.93	5.13	3.70	12	18	11	0	4.41	
5	13	10	32	14	45	8	19	19	34	3.40	2.90	3.86	4.43	3.64	11	19	15	0	....	
31	61	10	28	24	38	2	3	20	37	3.13	3.29	3.27	3.29	3.24	12	18	14	0	4.90	Temp. in error.
36	90	15	39	27	74	3	14	22	57	3.83	2.10	4.03	4.43	3.59	12	18	11	0	5.14	
18	61	13	55	20	68	8	14	22	52	3.02	3.28	3.25	3.27	3.20	14	16	11	0	3.19	
25	77	35	139	6	15	4	7	11	42	3.03	2.63	3.10	4.33	3.27	8	23	12	0	....	

MONTH OF OCTOBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	37.00	40.50	45.00	40.00	41.00	65	25	24.00	16.00	17	51	16	49	4	17
Fort Sullivan	42.09	48.13	53.35	45.96	47.72	63	31	15.28	16.72	0	0	0	0	0	0
Fort Preble	43.22	45.60	50.25	43.95	46.73	62	30	15.27	16.73	20	49	13	49	2	6
Fort Constitution	43.48	47.22	52.90	46.22	48.10	73	33	24.81	15.19	9	24	16	46	7	29
Watertown Arsenal	40.90	48.35	54.48	44.77	47.69	73	30	25.31	17.69	8	19	12	23	13	43
Fort Adams	43.54	52.64	59.06	51.64	51.30	69	34	17.70	17.30	15	81	36	226	17	73
Fort Trumbull	41.22	49.06	56.80	47.93	49.01	72	28	22.99	21.01	11	23	4	11	7	37
Fort Columbus	48.32	53.00	59.06	51.55	53.69	72	38	18.31	15.69	3	5	24	43	3	8
Fort Hamilton	48.70	51.30	59.20	52.50	53.95	74	36	20.05	17.95	18	53	10	26	3	6
West Point	42.83	49.21	55.90	47.25	48.81	70	32	21.19	16.81	2	4	5	8	0	0
Watervliet Arsenal	40.03	46.58	52.83	44.58	46.43	70	30	23.57	16.43	17	41	1	4	0	0
Plattsburg Barracks	40.00	46.48	53.06	43.51	46.53	70	27	23.47	19.53	10	23	15	29	1	1
Madison Barracks	41.15	45.28	47.16	42.26	44.30	65	26	20.70	18.30	2	8	18	58	1	4
Fort Ontario	42.60	46.30	48.50	44.00	45.10	67	28	21.90	17.10	16	30	18	38	0	0
Fort Niagara	42.70	47.22	49.19	44.09	45.95	67	27	21.05	18.95	17	36	6	26	3	9
Buffalo Barracks	41.19	45.25	50.30	46.90	45.12	69	24	23.88	21.12	9	26	2	6	4	12
Alleghany Arsenal	42.03	45.48	52.61	44.22	46.08	74	24	25.52	24.48	7	9	2	3	0	0
Carlisle Barracks	43.50	53.50	56.10	44.70	49.80	74	28	24.20	21.80	5	5	0	0	8	8
Fort Mifflin	44.93	53.51	57.96	48.74	51.28	74	38	16.76	19.24	2	3	11	28	1	2
Fort McHenry	50.21	55.03	59.50	55.00	54.36	73	32	18.64	22.36	17	40	3	8	4	10
Fort Severn	47.67	55.41	59.09	52.22	53.16	76	32	22.84	21.16	6	23	2	6	1	3
Fort Monroe	53.27	58.13	63.23	58.80	58.25	81	42	22.75	16.25	2	5	8	27	4	9
Fort Macon	57.60	64.00	67.60	62.60	62.60	85	43	22.40	19.60	40	119	15	46	0	0
Fort Johnston	58.00	66.00	73.00	65.00	64.00	90	44	26.00	20.00	17	17	19	19	8	8
Augusta Arsenal	60.22	64.22	69.35	64.93	64.75	80	48	15.25	16.75	29	33	10	13	0	0
Fort Moultrie	63.35	66.45	71.33	69.41	67.31	84	47	16.69	20.31	26	69	10	35	16	55
Oglethorpe Barracks	58.61	66.38	75.45	66.84	67.35	88	40	20.65	27.35	34	53	27	54	3	6
Fort Marion	64.90	72.19	74.86	69.83	70.77	89	52	18.23	18.77	7	10	42	72	9	10
Key West	76.93	84.40	82.52	77.94	79.89	88	72	8.11	7.89	8	24	27	124	31	95
Fort Brooke	65.40	71.50	74.70	70.60	70.05	86	50	15.95	20.05	2	3	46	115	12	16
Camp Barrancas	60.77	69.03	76.19	65.80	68.46	88	36	19.54	32.46	18	38	27	79	5	13
Mount Vernon Arsenal	55.22	61.34	71.90	60.61	63.61	86	32	22.39	31.61	0	0	66	135	0	0
Fort Pike	60.80	69.50	74.70	65.10	67.75	89	38	21.25	29.75	13	36	37	80	11	23
Fort Wood	60.44	70.29	75.17	65.36	68.20	90	43	21.80	25.20	51	61	1	2	31	35
Pass Christian	62.00	68.45	73.90	66.70	67.95	83	36	15.05	31.95	22	43	24	35	7	13
Baton Rouge	57.22	66.41	72.83	65.45	65.02	88	38	22.98	27.02	71	130	5	11	12	26
Fort Jesup	57.20	60.30	67.10	63.00	61.82	83	38	21.18	23.82	4	4	43	67	4	4
Fort Washita	50.90	57.20	66.90	57.50	58.90	80	30	21.10	28.90	1	1	26	55	0	0
Fort Towson	50.40	59.80	67.80	57.00	59.10	81	34	21.90	25.10	3	3	34	35	15	16
Fort Smith	43.77	54.51	64.48	48.70	54.14	82	26	27.86	28.14	1	1	16	49	13	31
Fort Gibson	48.90	55.88	64.54	53.24	56.65	81	31	24.35	25.65	1	3	28	75	27	53
Fort Scott	40.20	50.70	61.60	49.30	50.90	82	29	31.10	21.90	11	23	14	30	14	28
Jefferson Barracks	40.03	48.12	55.12	48.12	49.56	72	29	22.44	20.56	3	7	0	0	7	12
St. Louis Arsenal	45.06	51.66	61.73	52.23	53.39	79	26	25.61	27.39	19	24	12	24	23	30
Detroit Barracks	37.59	46.16	49.83	41.56	44.62	73	15	28.38	29.62	14	34	9	16	6	9
Fort Gratiot	39.00	43.01	49.67	40.93	44.90	71	21	26.10	23.90	3	10	4	4	0	0
Fort Mackinac	38.87	42.51	42.34	41.38	42.29	60	22	17.71	20.29	12	25	2	4	7	16

MONTH OF OCTOBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	40	21	55	14	45	15	45	22	72	2.50	2.50	2.00	3.00	2.23	7	24	14	2	7.84	
26	83	15	44	46	158	17	55	19	82	4.30	4.23	5.50	4.30	4.58	18	13	8	0	3.55	
16	56	11	17	28	43	12	19	22	71	3.32	3.19	2.80	5.29	3.65	8	23	8	0	5.21	
3	15	6	15	17	49	26	62	35	110	4.35	4.35	3.58	5.12	4.35	14	17	8	0	3.33	
5	12	2	6	30	94	21	39	27	74	7.52	7.94	6.10	7.55	7.27	16	15	11	0	5.80	
5	28	6	22	34	177	5	26	3	21	4.51	4.74	4.83	4.84	4.53	15	16	11	0	10.02	
5	19	4	11	23	77	5	17	64	147	4.41	4.12	4.51	4.58	4.40	13	18	12	0	7.45	
17	31	3	5	21	29	8	18	45	117	6.58	6.93	5.71	5.81	6.25	16	15	7	0	5.91	
8	16	7	13	15	43	18	58	24	104	5.80	5.95	5.15	6.40	5.82	17	14	7	0	4.10	
10	20	8	15	4	11	4	7	45	108	5.03	4.48	4.46	6.67	5.16	17	14	10	1	6.95	
4	6	47	151	5	17	19	58	21	59	4.32	4.19	4.29	3.67	4.11	11	20	5	2	4.83	
13	36	2	10	23	79	1	3	56	94	2.70	3.16	4.83	2.80	3.37	22	9	10	4	4.88	
34	27	19	88	26	146	0	0	22	112	2.17	3.30	2.30	3.50	2.81	12	19	13	3	6.91	
17	39	10	29	31	58	14	40	16	48	3.70	3.30	3.80	3.80	3.65	15	16	16	3	....	
2	6	15	40	35	87	17	50	25	100	2.67	3.64	2.77	3.45	3.13	12	19	9	1	2.24	
8	19	9	40	38	153	29	97	19	67	3.20	3.14	2.15	3.30	2.94	10	21	17	3	7.76	
3	5	1	3	16	44	29	107	13	32	2.81	4.45	3.51	5.91	4.17	12	19	14	2	3.46	
0	0	7	7	9	9	55	82	13	14	6.80	6.50	5.70	6.60	6.40	23	8	8	0	....	
5	12	5	12	36	78	21	49	43	98	5.93	6.26	6.13	6.13	6.11	20	11	8	0	2.84	
7	16	7	13	14	39	32	105	38	81	6.70	6.27	6.27	6.11	6.33	20	11	8	0	1.97	
11	34	16	47	22	70	18	51	37	127	5.41	6.09	6.16	6.51	6.04	20	11	7	0	2.64	
5	11	5	15	35	93	13	34	51	156	5.19	6.11	6.80	6.27	6.09	21	10	8	0	4.50	
5	9	10	23	24	83	3	5	23	63	7.50	7.40	6.90	6.80	7.15	23	8	6	0	6.50	Inaccurate.
3	3	21	21	11	11	4	4	7	7	6.00	7.00	7.00	7.00	6.75	25	6	..	0	....	Inaccurate.
2	2	11	15	33	35	3	3	30	36	6.38	6.41	7.19	7.35	6.33	23	8	3	0	....	
3	10	7	26	8	30	33	97	6	15	5.74	6.29	5.25	7.32	6.15	22	9	2	0	0.65	
6	13	19	35	21	44	7	21	3	6	2.54	4.93	5.32	6.35	4.78	15	16	3	0	0.60	
7	9	0	0	3	3	1	1	41	48	5.10	5.80	5.30	6.80	5.75	21	10	5	0	2.39	
29	87	2	2	2	7	3	6	22	43	5.58	5.94	5.81	6.84	6.04	23	8	12	0	6.83	
18	24	1	1	10	21	6	11	5	12	5.50	6.80	7.50	6.50	6.57	23	8	6	0	2.60	
9	22	1	3	22	79	3	9	37	84	4.45	4.67	4.70	6.32	5.03	15	16	5	0	1.46	
20	33	0	0	10	26	1	1	30	70	5.87	6.67	6.30	7.00	6.46	23	8	5	0	5.05	
23	51	4	13	7	16	16	48	11	33	5.50	5.80	5.40	6.70	5.85	19	12	8	0	4.14	
0	0	13	14	0	0	23	33	0	0	6.20	6.70	5.40	6.80	6.27	21	10	5	0	2.39	
20	34	5	3	11	25	10	13	13	21	5.57	5.25	4.90	5.65	5.34	14	17	5	0	1.12	
7	15	19	37	0	0	3	6	0	0	4.70	5.96	5.67	6.19	5.63	22	9	11	0	2.58	
14	14	9	10	33	40	0	0	12	21	3.70	4.60	5.30	4.50	4.77	13	18	12	0	5.79	
25	51	2	5	30	78	7	25	27	85	5.40	6.10	5.90	5.70	5.77	19	12	7	0	3.80	
19	21	1	2	5	5	5	6	35	40	5.50	5.74	5.45	5.80	5.64	16	15	10	0	6.56	
5	13	1	1	17	39	5	15	12	25	5.32	5.90	5.77	5.80	5.69	16	15	7	1	2.14	
65	149	2	6	1	3	0	0	0	0	4.00	7.00	6.00	7.00	6.00	18	13	7	0	2.14	
6	12	13	38	25	90	16	33	22	44	6.10	6.10	6.20	6.30	6.25	20	11	6	2	0.69	
12	29	13	39	20	41	40	101	24	66	5.35	5.22	5.12	5.67	5.34	15	16	5	1	1.65	
13	19	7	11	13	23	27	63	12	24	5.00	5.00	5.00	3.00	4.50	20	11	3	1	1.50	
7	17	31	89	17	53	22	55	16	40	2.25	2.19	2.35	4.22	2.75	10	21	9	2	1.90	
18	40	10	26	50	132	10	14	27	52	2.96	2.87	3.03	3.54	3.10	13	18	14	5	2.73	
6	14	12	41	16	56	19	56	49	134	2.77	3.22	3.55	3.42	3.24	8	23	12	5	....	Therm. in ex., 9 a. m.

MONTH OF OCTOBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	34.50	38.20	41.50	37.00	38.04	66	10	27.96	28.04	8	24	1	2	8	19
Fort Winnebago	31.93	39.48	46.67	38.41	39.29	71	10	31.71	29.29	13	40	1	1	1	4
Fort Atkinson	31.12	39.09	45.35	36.54	38.24	66	2	27.76	36.24	29	55	5	7	0	0
Fort Crawford	34.00	40.80	47.21	38.17	40.22	70	6	29.78	34.22	1	1	0	0	0	0
Fort Des Moines	34.00	42.00	53.00	41.00	43.50	71	11	27.50	32.50	14	19	2	3	0	0
Fort Snelling	42.09	48.13	53.35	45.96	47.72	65	10	27.76	27.24	1	2	4	15	0	0
Fort Leavenworth	41.07	46.00	56.28	49.03	49.04	84	24	34.96	25.04	4	5	7	13	3	6

MONTH OF OCTOBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
21	44	12	26	15	38	18	60	33	145	1.22	1.35	1.96	1.96	1.62	6	25	14	4	5.72	
2	4	15	62	10	33	22	73	39	162	5.00	5.51	4.76	4.45	4.92	17	14	7	5	0.60	
0	0	18	52	5	9	3	6	60	124	6.00	4.90	4.03	5.25	5.94	16	15	6	7	....	
13	22	5	7	14	20	8	15	80	154	5.15	5.14	5.10	5.25	5.14	19	12	6	5	1.33	
9	11	9	21	16	34	24	36	60	100	4.50	5.80	5.00	5.30	5.15	17	14	6	3	....	
10	20	8	24	46	113	15	35	41	114	4.54	3.93	4.19	5.80	4.61	16	15	4	5	0.50	
5	12	35	86	14	40	22	35	35	84	3.23	4.27	5.17	4.30	4.24	16	15	2	1	1.04	

MONTH OF NOVEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Hancock Barracks.	24.33	26.50	31.00	26.50	27.66	43	— 6	15.34	31.66	19	63	6	17	11	26
Fort Sullivan	31.70	35.00	39.06	34.06	35.38	49	5	13.62	30.38	8	30	3	10	0	0
Fort Preble............	31.10	33.90	37.66	33.00	34.38	52	13	17.62	21.38	23	68	7	18	0	0
Fort Constitution	33.20	35.53	40.06	35.43	36.61	53	20	16.39	16.61	25	44	6	13	3	11
Watertown Arsenal....	30.23	35.90	41.20	33.36	36.71	62	17	26.29	18.71	3	9	6	12	8	20
Fort Adams............	34.10	36.93	40.16	35.06	37.13	58	25	20.87	12.13	26	138	16	91	12	54
Fort Trumbull.........	30.93	36.76	42.70	38.53	36.81	59	16	22.19	20.81	21	58	4	11	3	8
Fort Columbus	37.80	41.80	43.20	40.10	40.50	58	31	17.50	9.50	2	4	16	24	4	4
Fort Hamilton.........	37.60	39.30	46.60	39.80	42.10	64	24	21.19	18.10	13	42	15	29	1	2
West Point............	33.10	35.23	39.73	34.93	36.41	58	20	23.60	16.40	10	20	0	0	0	0
Watervliet Arsenal....	31.10	37.60	46.03	36.00	38.56	60	16	21.44	22.56	21	37	0	0	0	0
Plattsburg Barracks....	31.26	34.16	41.23	33.79	36.25	54	4	17.75	32.25	16	45	20	47	0	0
Madison Barracks......	32.40	34.11	35.24	33.10	34.20	44	12	9.80	22.20	1	4	12	49	0	0
Fort Ontario	32.40	33.50	36.50	34.00	34.30	48	20	13.70	14.30	16	48	8	21	9	12
Fort Niagara..........	32.33	35.20	36.63	33.93	34.48	52	18	17.52	16.48	26	104	8	23	6	24
Buffalo Barracks.......	31.20	34.14	37.40	33.13	34.10	50	17	15.90	17.10	10	31	8	28	7	18
Alleghany Arsenal.....	33.53	36.13	41.30	36.30	37.41	59	13	21.69	26.41	11	12	6	8	0	0
Carlisle Barracks.......	32.10	37.40	42.90	35.70	37.50	60	12	12.50	25.50	3	3	8	8	17	17
Fort Mifflin............	35.63	41.30	45.46	39.10	40.56	64	25	23.44	15.56	4	8	12	29	4	9
Fort McHenry.........	36.40	42.90	47.43	40.60	41.96	64	25	22.06	16.95	25	41	8	19	5	8
Fort Severn...........	37.16	43.66	46.10	40.73	41.95	58	19	16.05	22.95	9	27	1	4	2	7
Fort Monroe..........	44.10	48.14	52.70	47.25	48.80	70	29	21.20	19.80	5	6	20	55	14	34
Fort Macon............	49.70	54.10	56.75	55.30	53.22	67	31	13.78	22.22	31	117	21	56	3	6
Fort Johnston.........	50.00	60.00	66.00	55.00	58.00	75	30	17.00	28.00	6	6	23	23	6	6
Augusta Arsenal.......	55.43	58.66	62.03	56.90	58.66	72	42	13.34	16.66	24	26	2	4	4	8
Fort Moultrie	54.45	59.40	63.80	59.48	59.62	74	37	14.38	22.62	11	33	24	96	42	144
Oglethorpe Barracks....	51.80	60.60	68.20	61.63	59.90	80	36	20.10	23.90	11	6	38	67	26	36
Fort Marion...........	61.70	69.09	71.07	65.02	67.06	83	52	15.94	15.06	8	11	29	57	14	18
Key West.............	74.06	82.30	80.06	75.06	77.06	85	65	9.94	12.06	7	25	60	216	21	64
Fort Brooke...........	62.10	65.70	75.60	67.90	68.85	80	52	11.15	16.85	0	0	40	59	29	43
Camp Barrancas........	60.20	65.50	69.60	63.93	64.90	76	43	11.10	21.90	24	54	10	27	39	132
Mount Vernon Arsenal.	53.40	58.50	67.20	57.46	59.56	80	40	20.44	19.56	0	0	67	118	0	0
Fort Pike..............	59.20	65.20	70.10	62.60	64.65	80	42	15.35	22.65	6	20	38	94	21	49
Fort Wood............	59.18	66.60	71.24	63.60	65.15	82	42	16.85	23.15	32	47	0	0	47	54
New Orleans..........	64.63	68.37	71.63	66.37	68.13	82	55	13.87	13.13	16	32	29	44	19	18
Baton Rouge..........	59.30	65.13	75.43	66.00	66.46	86	44	19.54	22.46	32	74	9	23	36	87
Fort Jesup............	55.50	58.00	62.50	57.60	57.99	74	42	16.01	15.99	7	10	27	48	6	6
Fort Washita.........	46.30	49.60	58.50	50.70	52.40	74	30	21.60	22.40	0	0	34	66	1	1
Fort Towson..........	46.40	51.70	59.80	50.10	53.50	74	29	20.50	24.50	7	7	39	41	18	19
Fort Smith............	40.40	48.10	56.10	43.16	47.88	70	24	22.12	23.88	1	4	28	87	15	35
Fort Gibson..........	44.48	47.65	56.14	47.12	50.25	73	30	22.75	20.25	6	18	36	61	24	29
Fort Scott.............	37.50	41.00	48.20	39.10	42.35	66	22	23.65	20.35	9	20	23	36	7	15
Jefferson Barracks......	39.26	43.13	46.76	42.53	42.61	62	23	19.39	19.61	8	17	12	19	17	42
St. Louis Arsenal......	33.33	43.50	50.16	40.56	41.74	68	24	26.26	17.74	12	27	13	19	16	30
Detroit Barracks.......	31.36	35.96	38.56	34.00	34.95	58	17	23.05	17.95	23	39	15	22	6	12
Fort Gratiot...........	31.60	34.40	37.00	33.60	34.80	57	19	22.20	15.80	4	11	7	23	1	4
Fort Mackinac	28.93	30.93	32.20	30.36	30.60	40	18	9.40	12.60	14	27	11	22	15	27

MONTH OF NOVEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	34	8	23	4	14	22	82	35	135	3.00	3.00	2.50	3.00	2.75	6	24	3	7	2.14	
22	72	11	42	38	141	7	30	25	101	3.66	3.96	4.26	2.20	3.52	8	22	6	3	3.40	
8	29	11	25	41	89	5	12	25	65	4.20	4.66	3.60	4.60	4.28	15	15	7	3	3.64	
4	19	9	25	4	11	34	88	34	95	4.56	4.60	4.20	4.33	4.42	14	16	7	4	2.67	
6	14	5	14	12	33	38	106	35	118	7.95	7.66	7.00	7.82	7.65	17	13	5	2	3.39	
0	0	4	16	20	105	16	55	23	131	6.36	6.40	6.26	6.36	6.34	21	9	5	3	6.84	
5	23	7	14	16	46	11	32	50	129	5.90	5.12	4.83	5.41	5.31	14	16	7	5	5.79	
6	6	2	2	13	16	16	34	58	126	5.50	5.50	4.40	6.30	5.42	14	16	7	1	2.82	
6	10	9	11	10	22	14	42	24	86	6.10	5.40	4.70	6.20	5.60	15	15	8	2	1.70	
4	8	6	9	3	6	7	8	45	72	5.06	4.30	4.56	4.93	4.71	17	13	6	3	4.60	
5	18	14	25	18	33	29	66	30	67	2.70	2.76	3.33	2.46	2.81	4	26	9	5	2.75	
14	35	6	21	15	50	2	8	44	110	2.53	3.43	5.00	2.73	3.42	20	10	8	6	3.08	
28	80	16	67	13	69	1	5	46	233	0.21	1.16	1.17	2.13	1.16	3	27	8	5	2.44	
18	36	12	21	21	46	16	53	19	56	1.30	1.50	1.40	1.70	1.47	5	25	4	8	....	
3	7	29	46	13	32	19	52	16	63	2.66	3.03	2.36	3.06	2.77	7	23	5	6	1.54	
11	39	2	4	30	129	29	94	19	57	2.15	2.70	1.23	2.28	2.09	6	24	12	10	3.27	
0	0	2	2	7	16	13	42	24	53	2.25	1.96	1.80	3.09	2.27	7	23	10	3	2.87	
4	4	10	11	0	0	37	52	31	42	4.50	4.50	5.20	6.50	5.17	16	14	6	3	....	
3	7	4	7	36	82	11	25	44	102	5.13	5.36	5.60	5.10	5.29	14	16	12	2	4.08	
6	11	7	15	15	35	36	81	13	28	1.64	1.60	1.81	1.68	1.68	15	15	8	2	4.25	
9	30	21	59	8	19	15	35	41	137	3.96	4.86	5.20	4.86	4.72	16	14	12	3	4.96	
8	16	2	5	26	58	10	28	31	99	3.20	3.80	3.21	5.10	3.82	8	22	10	1	2.20	
7	25	2	4	25	67	9	24	23	72	5.70	6.10	5.50	6.50	5.95	29	1	6	0	8.30	Inaccurate.
6	6	9	9	9	9	11	11	2	2	5.00	6.00	5.00	6.00	5.50	19	11	..	..	....	Inaccurate.
6	12	23	27	21	27	10	10	30	36	3.63	3.70	4.83	5.03	4.29	12	18	9	0	....	
1	3	1	3	4	15	18	63	4	13	4.63	4.76	4.36	5.83	4.89	17	13	4	0	0.55	Therm. protected.
19	30	9	18	6	10	3	7	6	10	4.90	5.06	4.20	4.63	4.69	15	15	9	0	0.96	
3	3	2	3	24	25	0	0	11	21	3.09	5.01	5.01	7.03	5.03	19	11	4	0	0.28	
32	96	0	0	0	0	0	0	0	0	8.10	7.77	7.63	8.83	8.08	30	0	4	0	0.90	
12	12	11	11	0	0	2	5	0	0	4.20	6.60	7.20	6.50	6.12	22	8	4	0	0.80	
7	20	12	51	5	12	17	51	5	18	2.53	3.33	3.76	4.50	3.53	10	20	7	0	5.78	
22	36	0	0	18	40	2	2	10	23	3.22	3.36	4.20	4.90	3.92	12	18	15	0	6.27	
28	65	2	3	4	12	5	15	13	36	3.50	3.55	4.50	4.70	4.06	12	18	9	0	6.49	
0	0	19	22	1	1	14	14	0	0	4.40	3.80	4.40	5.10	4.47	15	15	9	0	6.77	
22	32	4	9	12	25	3	1	15	24	2.20	2.66	3.10	3.50	2.87	7	23	11	0	1.93	
8	21	23	56	1	3	5	7	0	0	2.06	2.99	3.58	3.12	2.93	13	17	10	0	4.28	
18	27	38	54	17	26	0	0	5	10	2.50	3.10	3.40	2.40	2.85	10	20	18	0	8.30	
26	52	0	0	30	76	8	16	16	35	3.30	4.10	4.10	4.00	3.97	13	17	9	0	7.56	
12	13	3	4	2	4	3	4	30	41	2.93	3.16	4.06	4.13	3.57	10	20	14	1	9.37	
5	13	1	3	4	15	4	11	16	52	2.96	3.10	4.20	3.73	3.49	9	21	13	0	3.51	
49	93	0	0	0	0	0	0	1	6	0.01	3.50	4.20	3.60	2.57	13	17	9	0	1.94	
10	27	17	46	10	24	31	79	7	16	2.30	2.30	3.30	4.60	3.12	10	20	13	1	3.38	
13	37	7	15	19	58	21	72	13	56	3.06	2.90	3.40	3.00	3.09	8	22	11	1	4.16	
17	25	5	9	12	19	26	66	17	28	4.20	5.10	4.20	4.10	4.40	17	13	8	2	2.50	
12	28	12	23	31	63	6	11	12	33	1.03	1.10	1.56	2.90	1.64	3	27	9	2	1.30	
22	47	4	11	40	71	20	38	18	35	1.90	1.60	2.90	3.50	2.47	8	22	12	9	2.12	
15	43	6	19	1	2	22	63	33	77	1.66	2.26	2.26	6.73	1.97	3	27	4	7	....	

MONTH OF NOVEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	25.90	27.37	30.60	27.53	28.25	38	10	9.75	18.25	7	16	6	16	19	32
Fort Winnebago	25.73	28.83	34.03	28.30	29.88	42	10	12.12	19.88	14	47	9	23	3	14
Fort Atkinson	26.26	39.66	33.66	28.00	29.96	44	5	14.04	24.96	5	7	15	27	17	36
Fort Crawford	27.17	31.60	35.72	30.30	31.27	45	7	13.73	24.27	7	7	11	13	10	15
Fort Des Moines	28.70	33.30	41.20	33.00	34.95	61	1	26.05	33.95	12	25	7	19	30	59
Fort Snelling	22.40	25.00	30.83	26.30	26.61	39	5	12.39	21.61	3	10	6	18	1	2
Fort Leavenworth	35.12	37.16	44.22	39.29	40.20	59	17	18.80	23.20	39	90	11	25	5	10

MONTH OF NOVEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
27	67	5	7	10	22	17	60	27	94	1.30	1.17	1.46	1.50	1.35	5	25	13	10	3.19	
20	47	9	38	2	4	14	42	24	95	3.20	4.10	2.83	3.26	3.34	10	20	5	10	2.67	
7	19	8	24	17	42	22	42	25	45	3.70	3.30	4.66	4.80	4.11	11	19	6	9	....	
21	39	4	4	15	26	13	24	39	77	4.20	4.70	3.27	4.00	4.04	13	17	4	8	2.82	
6	18	7	9	15	45	18	32	75	54	3.80	4.00	3.90	4.80	4.12	12	18	5	4	....	
22	62	15	47	40	84	6	8	27	80	4.46	3.93	4.13	3.60	4.03	11	19	1	8	1.43	
1	4	30	99	13	23	11	28	5	11	2.11	3.25	4.17	5.50	3.75	15	15	4	1	0.05	

MONTH OF DECEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	15.50	17.00	26.00	19.50	20.75	42	5	21.25	25.75	18	42	23	66	19	24
Fort Sullivan	24.45	27.16	30.67	26.22	27.56	39	10	11.44	17.56	2	4	18	75	0	0
Fort Preble	24.66	26.09	33.54	26.96	29.09	40	12	10.91	12.09	36	137	15	65	1	2
Fort Constitution	26.70	28.16	33.73	27.87	30.03	42	6	11.97	24.03	21	26	17	53	3	6
Watertown Arsenal	23.87	28.34	33.93	26.22	28.83	42	— 1	13.17	29.83	10	21	15	38	3	7
Fort Adams	31.09	33.03	35.54	30.12	33.31	42	11	8.69	22.31	20	72	34	199	1	2
Fort Trumbull	27.03	29.80	35.48	29.19	31.25	46	6	14.75	25.25	19	38	19	52	3	8
Fort Columbus	32.93	34.97	39.32	35.00	36.12	46	18	9.88	18.12	1	3	21	26	4	5
Fort Hamilton	32.00	30.00	38.30	33.80	35.15	48	14	12.85	21.15	10	35	11	29	15	31
West Point	27.51	29.41	33.30	30.06	30.23	42	8	11.77	22.23	5	5	0	0	0	0
Watervliet Arsenal	28.00	31.19	34.41	29.32	31.20	42	— 1	10.80	32.20	16	25	3	4	6	13
Plattsburg Barracks	24.25	26.87	33.32	27.87	28.79	44	1	15.21	27.79	10	22	21	47	2	5
Madison Barracks	27.80	29.20	31.28	29.23	29.19	40	— 2	10.81	31.19	7	33	23	84	3	11
Fort Ontario	28.70	30.00	32.30	30.30	30.50	42	4	11.50	26.50	5	15	31	86	1	4
Fort Niagara	30.16	31.90	34.12	31.35	32.14	43	16	10.86	16.14	24	90	5	8	1	2
Buffalo Barracks	30.90	31.18	34.70	31.15	32.80	44	10	11.20	22.80	8	26	7	20	1	2
Alleghany Arsenal	31.16	32.65	36.67	32.22	33.59	46	4	12.41	29.59	2	2	12	13	3	3
Carlisle Barracks	28.40	31.10	34.90	30.10	31.65	44	— 6	12.35	37.65	1	1	14	14	16	17
Fort Mifflin	32.03	33.80	37.80	33.93	34.42	45	14	10.58	20.42	3	5	23	57	3	6
Fort McHenry	31.24	35.25	39.11	34.11	35.18	50	17	14.82	18.18	18	37	21	42	5	6
Fort Severn	33.51	38.77	40.09	35.58	36.80	54	19	17.20	17.80	7	26	3	12	0	0
Fort Monroe	38.17	40.30	45.00	40.90	41.24	58	25	16.76	16.24	10	26	18	39	14	22
Fort Macon	43.90	47.80	50.70	47.70	47.33	59	29	11.67	18.33	14	35	2	7	0	0
Fort Johnston	43.60	50.00	56.12	49.90	48.12	68	27	18.88	22.12	8	13	42	67	9	11
Augusta Arsenal	49.67	51.38	54.87	52.64	52.27	68	34	15.73	18.27	20	24	18	20	8	12
Fort Moultrie	49.06	52.03	57.72	54.67	53.39	66	30	12.61	23.39	21	63	18	66	30	86
Oglethorpe Barracks	45.96	52.22	61.00	51.80	53.48	74	28	20.52	25.48	15	26	26	28	13	17
Fort Marion	55.07	61.07	64.00	59.00	59.09	80	39	20.91	20.09	7	7	28	45	6	6
Key West	69.38	76.09	75.42	70.61	72.88	84	58	11.12	14.88	13	38	42	166	13	50
Fort Brooke	57.10	61.60	68.90	61.60	63.00	77	42	14.00	21.00	3	7	50	82	16	16
Camp Barrancas	51.48	55.22	60.70	55.03	56.09	70	36	13.91	20.09	41	128	5	18	40	172
Mount Vernon Arsenal	44.51	48.40	55.40	47.93	49.61	70	30	20.39	19.61	0	0	67	151	0	0
Fort Pike	49.64	53.29	59.84	53.45	54.70	74	33	19.30	21.70	19	54	50	136	13	36
Fort Wood	50.50	54.29	59.32	53.17	55.90	68	36	12.10	19.90	58	69	1	1	35	54
New Orleans	51.09	56.80	60.45	51.12	55.77	76	35	20.23	20.77	12	33	46	123	24	61
Baton Rouge	47.51	57.16	64.09	55.06	55.75	74	32	18.25	23.75	47	123	20	45	31	75
Fort Jesup	44.00	45.80	53.20	49.10	48.30	68	32	19.70	16.30	27	41	29	41	12	16
Fort Washita	37.90	44.10	56.90	47.80	47.20	66	25	18.88	22.20	5	10	20	42	1	2
Fort Towson	36.20	42.30	59.70	44.40	56.40	64	22	7.60	34.40	17	17	23	24	15	16
Fort Smith	30.16	37.38	51.12	35.74	40.25	59	17	18.75	23.25	0	0	14	28	17	46
Fort Gibson	36.42	42.20	53.99	42.67	45.20	69	24	23.80	21.20	7	17	12	30	31	48
Fort Scott	29.60	36.80	46.20	35.70	37.90	57	15	19.10	22.90	4	5	0	0	13	22
Jefferson Barracks	33.48	34.54	41.35	37.90	37.12	52	15	14.88	22.12	4	8	3	4	10	24
St. Louis Arsenal	28.64	46.48	43.22	35.93	35.93	58	12	22.07	23.93	10	11	7	14	22	25
Detroit Barracks	28.25	31.29	34.93	30.58	31.35	44	8	12.65	23.35	6	10	18	37	1	2
Fort Gratiot	28.40	30.20	34.40	31.00	31.90	46	3	14.10	28.90	7	20	11	14	5	7
Fort Mackinac	26.16	27.12	29.35	28.38	27.75	41	8	13.25	19.75	19	30	13	16	8	25

MONTH OF DECEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	18	31	87	13	40	8	16	12	48	2.50	3.00	3.00	3.00	2.85	3	28	8	4	1.58	
31	95	2	2	39	131	9	29	21	80	4.09	4.40	4.13	3.81	4.10	13	18	1	9	4.70	
0	0	4	5	40	66	2	2	26	97	2.29	2.83	2.23	3.48	2.71	7	24	0	9	1.04	
1	1	0	0	21	49	17	22	42	102	2.61	3.09	2.93	3.38	3.00	9	22	1	9	2.72	
1	2	1	1	21	54	31	52	37	116	8.20	8.00	5.40	8.30	7.47	12	19	0	8	3.45	
4	27	5	9	7	23	20	49	26	114	4.35	4.54	3.64	4.16	4.17	12	19	7	7	7.16	
2	6	0	0	17	44	7	16	51	148	5.93	4.03	3.54	4.12	3.90	12	19	8	5	3.80	
8	10	0	0	15	15	5	5	67	140	4.51	5.74	3.32	4.13	4.92	11	20	10	3	3.34	
9	18	3	6	0	0	21	72	35	133	4.20	4.80	3.40	5.30	4.42	10	21	6	4	3.21	
0	0	2	2	7	8	6	8	46	97	3.74	3.54	3.32	4.22	3.70	12	19	8	5	2.70	
0	0	38	68	15	26	16	38	27	81	2.70	2.45	1.51	2.29	2.23	7	24	0	8	1.60	
13	34	10	31	20	71	1	2	46	108	1.87	2.19	3.93	2.80	2.69	15	16	0	11	0.74	
30	121	20	89	16	66	4	16	21	101	0.26	0.26	0.13	1.24	0.47	0	31	2	12	2.06	
16	35	14	23	34	66	5	16	14	39	1.00	1.20	1.20	1.10	1.10	5	26	2	6	1.11	
8	24	7	12	25	60	28	62	11	41	1.64	2.58	2.80	2.38	2.35	11	20	7	0	1.36	Therm. protected
6	19	6	18	57	220	22	77	15	57	1.14	1.27	1.28	1.22	1.22	6	25	8	11	3.38	
3	4	5	10	20	42	16	31	20	56	1.54	1.77	1.83	2.12	1.81	6	25	7	6	2.26	
5	5	4	4	0	0	45	72	21	32	3.80	3.40	3.70	4.30	3.80	13	18	7	3	....	
1	2	2	6	34	62	5	10	51	120	4.42	5.25	3.80	4.71	4.54	14	17	9	3	4.30	
12	27	1	1	13	23	22	48	26	77	3.60	3.16	3.24	5.14	3.78	12	19	7	3	3.90	
7	18	18	38	17	43	7	16	50	191	3.12	3.80	3.70	4.77	3.84	15	16	8	2	4.26	
5	7	2	2	16	34	15	34	42	118	2.26	3.21	3.27	4.18	3.23	11	20	13	1	5.80	
5	11	8	22	22	67	13	47	59	220	4.30	5.40	5.70	5.30	5.17	15	16	8	0	2.85	Therm. protected.
0	0	14	17	7	9	26	36	16	29	4.10	5.11	5.12	4.26	4.64	18	13	8	0	....	" "
8	8	12	12	19	19	9	9	33	45	4.83	4.83	5.38	6.28	5.33	18	13	9	0	....	
3	10	0	0	10	30	20	63	15	33	4.09	5.03	4.19	5.93	4.81	18	13	9	0	2.61	Therm. protected.
9	13	16	25	4	8	16	26	18	24	4.93	4.83	4.19	4.19	4.53	18	13	8	0	3.57	
1	1	1	1	22	25	0	0	33	33	4.00	4.07	4.06	6.06	5.54	19	12	7	0	1.76	
47	117	1	4	4	12	0	0	4	16	5.48	6.00	5.90	7.48	6.21	22	9	5	0	1.31	
7	9	2	2	17	34	0	0	2	6	3.90	5.80	6.40	5.55	6.65	22	9	10	0	1.30	
5	18	2	7	0	0	19	63	4	15	3.48	4.00	4.67	4.77	4.23	13	18	5	0	4.30	
14	24	0	0	5	8	0	0	36	113	4.00	3.87	4.12	5.00	4.24	14	17	9	0	11.80	
14	31	0	0	4	7	7	15	15	44	3.80	3.80	4.29	3.96	3.96	13	18	14	0	7.31	
0	0	4	5	0	0	19	22	0	0	3.00	2.60	3.60	3.20	3.10	13	18	11	0	6.42	
12	24	6	12	5	9	7	17	12	23	3.25	2.74	3.67	4.70	3.59	11	20	10	0	6.02	
4	12	2	6	3	5	4	9	2	5	2.93	3.00	3.45	3.99	3.34	7	24	13	0	9.81	
25	25	19	30	4	4	1	1	5	5	4.40	4.00	4.00	4.30	4.17	12	19	12	0	7.08	
9	20	5	10	23	52	10	26	40	81	5.30	5.80	6.60	6.40	6.02	21	10	3	0	1.85	
12	12	3	4	5	9	7	8	36	39	5.22	5.41	6.25	6.83	5.92	18	13	7	0	0.80	
8	25	3	6	24	37	7	10	11	28	6.03	6.38	6.09	6.38	6.22	23	8	7	0	2.07	
62	126	4	13	0	0	1	2	0	0	0.03	5.22	6.54	4.18	4.02	15	16	3	0	0.90	
25	56	3	7	34	73	31	58	11	24	6.30	6.20	7.00	8.20	6.95	25	6	6	0	1.45	
19	37	15	35	12	31	23	64	17	49	4.12	4.64	5.41	5.96	5.03	14	17	8	0	1.47	
5	7	5	7	19	34	36	64	23	50	5.00	6.00	5.00	4.00	5.00	20	11	5	0	1.50	
15	37	19	43	34	61	11	26	18	30	1.54	0.83	1.58	2.77	1.55	3	28	0	8	2.07	
11	20	12	29	38	59	13	23	18	38	0.90	1.50	1.80	2.20	1.85	5	26	7	7	1.68	
14	27	16	72	16	48	21	69	17	36	1.12	1.77	2.06	1.45	1.60	3	28	0	12	....	Therm. protected

MONTH OF DECEMBER, 1843.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	23.90	23.19	28.51	24.42	25.80	40	0	14.20	25.80	9	24	9	14	19	42
Fort Winnebago	22.77	25.29	31.70	26.16	27.24	50	2	22.76	25.24	6	16	3	12	6	23
Fort Atkinson	22.78	25.90	31.22	25.80	26.96	44	— 1	17.04	27.96	2	3	8	19	14	28
Fort Crawford	25.00	27.00	32.22	29.14	28.61	42	0	13.39	28.61	1	1	2	2	13	18
Fort Des Moines	25.00	29.00	38.00	29.00	31.50	51	3	19.50	28.50	13	33	6	14	1	1
Fort Snelling	18.83	19.83	27.85	22.70	23.14	39	— 2	15.86	25.14	9	23	3	7	4	13
Fort Leavenworth	29.16	32.17	43.80	34.27	36.12	58	12	21.88	24.12	12	21	3	10	6	9

MONTH OF DECEMBER, 1843.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
24	48	17	34	11	27	13	28	20	61	1.22	1.29	2.60	1.61	1.68	3	28	8	4	1.58	Therm. protected.
2	2	24	90	11	28	14	44	25	87	2.67	2.83	2.74	3.29	2.88	9	22	1	8	0.58	
7	8	15	37	22	54	26	55	15	33	3.45	3.35	3.16	3.83	3.45	12	19	2	15	....	
20	30	16	60	16	62	6	6	44	81	3.17	3.15	3.19	4.30	3.45	13	19	0	9	0.47	
19	38	7	15	36	81	6	14	26	62	4.26	4.51	4.58	4.10	4.36	15	16	4	4	....	
24	51	6	16	54	111	2	4	30	80	4.06	3.16	2.87	4.32	3.60	10	21	1	5	0.27	
11	26	49	103	13	39	10	17	22	54	5.10	5.16	6.10	6.19	5.63	18	13	5	0	1.05	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Kent..........	47 15	68 35	575	19.21	8.53	24.54	40.00	50.96	62.10	64.67	68.70	......
Fort Fairfield........	46 46	67 49	415	19.90	10.17	23.18	38.40	49.03	57.96	60.16	64.74	......
Hancock Barracks...	46 07	67 49	620	22.44	12.72	25.98	41.47	50.75	59.38	62.00	64.75	51.50
Fort Sullivan........	44 54	66 58	70	29.07	20.30	27.40	40.48	49.26	57.08	61.28	61.18	56.48
Fort Preble..........	43 39	70 20	20	29.06	......	26.89	40.68	49.73	58.36	62.89	65.38	56.40
Fort Constitution	43 04	70 49	40	31.27	20.40	29.08	42.15	52.77	61.23	65.41	67.00	60.45
Watertown Arsenal..	42 21	72 17	100?	31.69	19.55	26.58	43.81	55.25	64.30	68.45	69.80	62.13
Fort Adams..........	41 30	71 19	40	34.40	21.45	29.80	45.16	55.42	65.28	73.22	72.87	64.69
Fort Trumbull.......	41 22	72 05	50	32.59	19.97	25.85	44.68	53.88	63.65	67.67	69.03	63.21
Fort Columbus.......	40 42	74 01	23	36.47	25.66	30.31	47.38	59.08	71.25	74.11	74.27	68.03
Fort Hamilton.......	40 37	74 02	25	37.27	26.80	30.80	48.50	56.90	68.40	71.90	74.40	68.45
West Point..........	41 23	74 00	167	33.40	21.40	26.77	47.20	59.00	71.00	74.96	71.79	66.46
Watervliet Arsenal ..	42 50	73 55	50	29.00	15.30	25.19	42.70	59.42	66.15	72.90	71.60	66.15
Plattsburg Barracks..	44 41	73 30	186	26.45	13.78	25.95	43.75	57.30	65.41	69.16	71.22	64.78
Madison Barracks....	43 57	76 15	262	30.24	14.18	23.30	42.30	51.15	59.23	66.20	67.20	59.37
Fort Ontario........	42 20	76 40	250	30.84	17.97	24.27	42.76	51.25	59.06	66.09	68.50	61.50
Fort Niagara........	43 18	79 08	250	31.80	20.08	25.74	41.75	50.64	61.31	68.70	69.38	63.70
Buffalo Barracks.....	42 53	78 58	660	30.80	18.17	19.20	43.30	52.10	63.04	69.20	71.15	63.19
Alleghany Arsenal...	40 32	80 12	704	35.77	23.84	26.05	48.01	57.64	68.10	72.38	71.25	66.84
Carlisle Barracks.....	40 12	77 14	?	33.74	23.90	26.88	50.80	60.15	68.85	72.70	72.05	67.90
Fort Mifflin..........	39 51	75 15	40	39.01	27.78	30.45	50.36	59.22	70.43	73.70	74.82	69.16
Fort McHenry.......	39 18	76 33	36	38.39	28.13	30.14	50.28	60.97	72.61	75.73	76.36	71.15
Fort Severn.........	38 58	76 27	20	......	......	32.46	51.46	60.40	72.13	75.66	75.11	70.40
Fort Monroe.........	37 00	76 15	20	44.12	37.12	37.08	55.30	64.18	75.29	78.19	77.18	75.28
Fort Macon.........	34 40	76 45	20	51.07	44.50	43.05	57.87	67.50	75.95	80.05	80.14	79.32
Fort Johnston.......	34 00	78 05	20	52.00	47.00	46.50	61.50	70.50	76.50	82.50	82.00	80.00
Augusta Arsenal.....	33 28	81 53	600?	50.90	46.69	43.87	64.76	71.16	78.23	82.96	79.20	80.73
Fort Moultrie........	32 42	79 56	20	53.67	48.73	48.82	64.68	71.61	78.06	81.47	80.43	80.85
Oglethorpe Barracks..	32 05	81 07	40	57.20	53.17	49.90	66.90	73.47	78.96	82.20	81.13	81.83
Fort Marion.........	29 50	81 30	12	58.50	58.09	55.12	67.50	71.56	77.05	80.01	78.58	79.60
Fort Shannon	29 32	81 48	50	58.97	57.04	58.80	70.86	75.90	79.08	80.30	79.45	......
Fort King..........	29 10	82 10	50	56.49	55.04	......	......	......	......	......	......	......
Fort Fanning........	29 40	83 10	50	56.71	......	......	......	......	......	......	......	......
Key West	24 20	81 49	20	......	......	......	78.14	81.32	84.02	85.24	84.17	82.12
Fort Brooke.........	28 00	82 28	20	62.30	59.92	62.67	72.56	74.90	76.55	77.35	76.90	77.75
Camp Barrancas	30 18	87 27	20	56.25	54.96	52.14	70.03	75.58	79.86	80.32	80.12	82.53
Fort Morgan	30 15	88 10	20	54.86	54.17	51.16	68.43	76.70	80.08	81.96	......	......
Mt. Vernon Arsenal..	31 12	88 20	75	52.50	50.70	47.70	69.50	75.30	76.66	82.35	78.21	78.86
Fort Pike	30 10	89 38	20	52.47	52.30	49.65	71.40	77.60	80.10	81.45	81.45	79.80
Fort Wood	30 08	89 51	20	54.58	52.38	51.41	71.12	78.30	78.24	81.45	80.21	80.58
Pass Christian	30 20	89 25	20	......	....	......	......	......	......	81.76	80.00	80.00
New Orleans	29 57	90 00	20	55.43	54.16	52.03	70.85	75.79	78.50	......	......	......
Baton Rouge Barracks	30 26	91 18	41	55.08	54.50	51.47	72.76	76.98	79.74	82.09	80.50	80.10
Fort Jesup	31 33	93 32	80?	54.25	47.90	41.60	69.65	75.34	77.30	81.75	76.25	78.60
Fort Washita........	34 15	96 55	200?	47.50	41.70	36.50	65.30	69.70	76.70	80.30	77.00	75.40
Fort Towson	34 00	95 33	150?	49.40	43.60	39.00	66.51	70.30	75.10	78.80	75.95	76.15
Fort Smith..........	35 25	94 29	460	41.70	36.83	31.53	60.23	67.72	74.38	78.79	74.83	73.71
Fort Gibson.........	35 47	95 10	542	43.30	38.17	39.50	62.40	66.93	74.50	76.83	74.17	78.20

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1843.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
......	......	......	38.50	65.09	......	......	......	90	—36	....	....	Mouth of Fish river, Maine.
......	......	......	36.87	60.95	......	......	......	86	—28	....	....	On the Aroostook river, Maine.
41.00	27.66	20.75	39.40	62.04	40.05	18.64	40.03	89	—20.5	48.9	60.5	Houlton, Maine.
47.72	35.38	27.56	39.05	59.85	46.53	25.64	42.77	89	— 6	46.2	48.7	Eastport, Maine.
46.73	34.38	29.09	39.10	62.21	45.84	......	......	87	— 5	....	....	Portland, Maine.
48.19	36.61	30.03	41.33	64.55	48.42	27.23	45.38	91	2	45.6	43.4	Portsmouth, New Hampshire.
47.69	35.71	28.83	41.88	67.52	48.51	26.69	46.15	91	— 9	44.8	55.2	Near Boston, Massachusetts.
51.30	37.13	33.31	43.46	70.12	51.04	30.72	48.78	89	9	40.2	39.8	Newport, Rhode Island.
49.01	36.81	31.25	41.47	66.78	49.68	27.94	46.47	92	— 8	45.3	54.6	New London, Connecticut.
53.69	40.50	36.12	45.59	73.21	54.07	32.75	51.40	93	9	41.6	42.4	Governor's Island, N. Y. harbor.
53.95	42.10	35.15	45.40	71.57	54.83	33.07	51.22	94	8	42.8	43.2	Narrows, New York harbor.
48.81	36.41	30.23	44.32	72.58	50.56	28.34	48.95	90	5	41.1	43.9	Hudson river, New York.
46.43	38.56	31.20	42.44	70.22	50.38	25.17	47.05	92	—21	44.9	68.1	Watervliet, near Troy, N. Y.
46.53	36.25	28.79	42.33	68.60	49.19	23.01	45.78	89	—14	43.2	59.8	Plattsburg, L. Champlain, N. Y.
44.30	34.20	29.19	38.92	64.21	45.96	24.54	43.41	88	— 7	44.6	50.4	Sackett's Harbor, New York.
45.10	34.30	30.50	39.43	64.55	46.97	26.44	44.35	90	1	45.6	43.4	Oswego, New York.
45.95	34.48	32.14	39.38	66.46	48.04	28.01	45.47	87	4	41.5	41.4	Mouth of Niagara river, N. Y.
45.12	34.10	32.80	38.20	67.80	47.47	27.26	45.18	90	— 4	44.8	49.2	Buffalo, New York.
46.08	37.41	33.59	43.90	70.58	50.11	31.73	49.08	97	6	47.9	43.1	Pittsburg, Pennsylvania.
49.80	37.50	31.65	45.94	71.20	51.73	29.76	49.66	96	— 5	46.3	54.7	Carlisle, Pennsylvania.
51.28	40.56	34.42	46.68	72.98	53.67	33.74	51.77	98	10	46.2	41.8	Delaware river, near Phila.
54.36	41.96	35.18	47.13	74.90	55.82	33.90	52.94	92	3	39.1	49.9	Baltimore, Maryland.
53.16	41.95	36.80	48.11	74.30	55.17	......	......	94	14	....	....	Annapolis, Maryland.
58.25	48.80	41.24	52.19	76.89	60.78	40.83	57.67	97	19	39.3	38.7	Old Pt. Com., near Norfolk, Va.
62.60	53.22	47.33	56.14	78.71	65.05	47.63	61.88	90	20	28.1	41.9	Beaufort, North Carolina.
64.00	58.00	49.12	59.50	80.33	67.33	49.37	64.13	94	18	29.8	46.1	Smithville, North Carolina.
64.75	58.66	52.27	59.93	80.13	68.05	49.95	64.51	97	22	32.5	42.5	Augusta, Georgia.
67.31	59.62	53.39	61.70	79.99	69.26	51.93	65.72	89	26	23.3	39.7	Charleston harbor, S. Carolina.
67.35	59.90	53.48	63.42	80.76	69.69	54.62	67.12	96	28	28.9	39.1	Savannah, Georgia.
70.77	67.06	59.09	64.73	78.55	72.48	58.56	68.58	93	30	24.4	38.6	St. Augustine, Florida.
......	......	......	68.52	79.61	......	......	......	99	28	....	....	Pilatka, St. John's river, Fla.
......	......	......	......	......	......	......	......	..	23	....	....	Central Florida. [Fla.
......	......	......	......	......	......	......	......	..	23	....	....	Suwanee river, near Cedar Keys,
79.89	77.06	72.88	......	84.48	79.69	......	......	96	....	....	....	Key West, Florida.
70.05	68.85	63.00	70.04	77.03	72.22	61.74	70.26	88	31	17.7	39.2	Tampa Bay, Florida.
68.46	64.90	56.09	65.92	80.10	71.96	55.77	68.44	90	34	21.5	34.4	Near Pensacola, Fla. [bay, Ala.
......	......	......	65.43	......	......	......	......	88	32	....	....	Mobile Point, entrance to Mobile
63.61	59.56	49.61	64.17	79.07	67.34	50.94	65.38	94	24	28.6	41.4	Near Mobile, Ala. [N. O., La.
67.75	64.65	54.70	66.22	81.00	70.73	53.16	67.78	94	26	26.2	41.7	Entrance to L. Pontchartrain, n'r
68.20	65.15	55.90	66.94	79.97	71.31	54.29	68.13	94	28	25.9	40.1	Petite Coquille I'd, n'r N. O., La.
67.95	......	......	......	80.08	69.03	......	......	92	....	....	....	Entrance to Lake Borgne, Miss.
......	68.13	55.77	66.22	......	......	55.12	67.61	..	28	24.4	39.6	New Orleans.
65.02	66.46	55.75	67.07	80.78	70.53	55.11	68.37	95	27	26.6	41.4	Baton Rouge, Louisiana.
61.82	57.99	48.30	62.20	78.43	66.14	50.15	64.23	99	16	34.8	48.2	Near Nachitoches, Louisiana.
58.90	52.40	47.20	57.17	78.00	62.23	45.47	60.72	100	14	37.3	46.7	Washita river, Indian Territory.
59.10	53.50	56.40	58.60	76.62	62.92	49.70	61.96	93	10	31.1	51.9	On a small tributary of Red river,
54.14	47.88	40.25	53.16	76.00	58.58	39.59	56.83	98	— 3	41.2	59.8	Arkansas river, Ark. [Ind. Ter.
56.65	50.25	45.20	56.28	75.17	61.70	42.22	58.84	94	10	35.2	48.8	Arkansas river, Indian Ter.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Scott	37 45	94 35	1,000?	37.11	28.05	24.55	53.95	63.50	71.95	75.45	73.40	70.70
Jefferson Barracks ...	38 28	90 15	382	36.16	23.78	25.50	52.66	65.34	72.86	76.58	74.56	70.00
St. Louis Arsenal....	38 40	90 05	450	....	22.54	25.28	56.03	66.79	74.80	79.83	76.82	72.59
Dearbornville Arsenal	42 20	83 01	580	30.05	17.17	20.68	49.00	56.68	66.56	68.15	....	....
Detroit Barracks.....	42 20	82 58	580	30.48	19.25	22.45	46.83	54.35	64.33	66.00	66.08	65.48
Fort Gratiot.........	42 55	82 23	598	29.18	18.46	19.96	39.94	50.00	60.46	63.32	67.81	63.50
Fort Mackinac.......	45 51	84 38	728	25.40	9.25	16.87	36.56	44.38	56.56	59.82	64.98	57.70
Fort Brady..........	46 30	84 43	600	21.81	3.69	12.70	35.96	44.60	55.60	67.90	62.93	53.30
Fort Winnebago.....	43 31	89 28	770?	22.03	8.75	12.38	44.31	53.22	54.26	70.59	67.04	61.83
Fort Atkinson	43 00	92 00	700?	21.17	8.39	7.53	44.40	55.08	66.31	72.72	67.17	62.10
Fort Crawford	43 05	91 00	642	20.17	7.70	8.29	45.60	56.22	67.16	74.00	71.10	65.18
Fort Snelling........	44 53	93 10	820	20.70	2.01	4.67	43.55	52.25	62.98	69.90	66.56	57.95
Fort Leavenworth ...	39 18	94 55	896	28.96	20.50	17.45	49.76	60.40	70.50	74.46	72.25	67.20
Fort Croghan	41 15	95 42	1,050	24.90	13.78	12.86	48.63	58.22	68.25	73.77	69.46	63.80
Fort Des Moines.....	41 32	93 38	780?	....	....	....	....	....	....	....	....	....

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1843.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
50.90	42.35	37.90	47.33	73.60	54.65	34.35	52.48	94	2	41.5	50.8	Near western boundary of Mo.
49.56	42.61	37.12	47.83	74.67	54.06	32.35	52.23	91	1	38.8	51.2	Near St. Louis, Missouri.
53.39	41.74	35.93	49.37	77.15	55.91	31.54	53.49	100	— 2	46.5	55.5	St. Louis, Missouri.
......	......	......	42.12	......	......	......	......	94	—11	....	....	Near Detroit, Michigan.
44.62	34.95	31.35	41.21	65.47	48.35	27.03	45.51	94	— 5	48.5	50.5	Detroit, Michigan.
44.90	34.80	31.90	36.63	63.86	47.73	26.51	43.68	91	— 7	47.3	50.6	St. Clair river, Michigan.
42.29	30.60	27.75	32.60	60.45	43.53	20.80	39.34	80	— 7	40.7	46.3	Island of Mackinac, L. Huron.
38.04	28.25	25.80	31.09	62.14	39.86	17.10	37.55	86	—21	48.4	58.5	Sault Ste Marie, Michigan.
39.29	29.88	27.24	36.64	67.30	43.67	19.34	41.74	94	—22	52.3	63.7	Central Wisconsin.
38.24	29.96	26.90	35.67	68.73	43.43	18.82	41.66	94	—16	52.3	57.7	Turkey river, Iowa.
40.22	31.27	28.61	36.70	70.75	45.56	18.83	42.96	91	—23	48.1	65.9	Prairie du Chien, Wisconsin.
47.72	26.61	23.14	33.49	66.48	44.09	15.28	39.83	89	—20	49.2	59.8	St. Paul, Minnesota.
49.04	40.20	36.12	42.54	72.40	52.16	28.53	48.91	90	—10	41.1	58.9	Kansas, on the Missouri river.
......	......	......	39.90	70.49	......	......	......	93	—14	....	....	Near Council Bluffs, Iowa.
43.50	34.93	31.50	......	......	......	......	......	..	....	....	....	On riv. Des Moines, Cent'l Iowa.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1843.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn,	Winter.	Year.
Hancock Barracks	2.02	3.15	2.79	3.92	2.80	2.37	2.70	8.92	1.10	7.84	2.14	1.58	9.51	13.99	11 08	6.75	14.33
Fort Sullivan	2.15	2.80	3.38	3.05	2.35	1.55	3.83	3.75	0.95	3.55	3.40	4.70	8.78	9.13	7.90	9.65	35.46
Fort Preble	....	....	5.20	4.42	4.05	4.79	*1.31	6.30	0.39	5.21	3.64	1.04	13.67	12.40	9.24	*2.91	*38.22
Fort Constitution	1.28	3.57	*1.40	2.77	0.60	6.52	1.70	7.16	0.43	3.33	2.67	2.72	4.77	15.38	6.43	7.57	34.15
Watertown Arsenal	1.96	6.74	5.41	3.60	1.86	4.50	2.58	8.00	1.12	5.80	3.39	3.45	10.87	15.08	10.31	12.15	48.41
Fort Adams	4.22	6.43	5.68	7.56	3.69	2.05	2.88	9.12	1.96	10.02	6.84	7.16	16.93	14.05	18.82	17.81	67.61
Fort Trumbull	2.05	3.42	5.92	4.20	3.35	2.47	2.51	10.14	1.68	7.45	5.79	3.80	13.47	15.12	14.92	9.27	52.78
Fort Columbus	1.00	2.31	2.13	2.14	1.00	0.76	1.64	15.26	3.06	5.91	2.82	3.34	5.27	17.66	11.79	6.65	41.37
Fort Hamilton	0.70	1.90	4.20	5.70	1.32	1.67	1.88	14.05	3.75	4.10	1.70	3.21	11.22	17.60	9.55	5.81	44.18
West Point	2.70	3.02	5.05	3.40	2.28	1.95	3.00	11.33	3.62	6.95	4.60	2.70	10.73	16.28	15.17	8 42	50.60
Watervliet Arsenal	1.90	....	1.30	4.26	3.25	6.05	4.39	7.02	2.61	4.83	2.75	1.60	8.81	17.46	10.39	*3.50	40.16
Plattsburg Barracks	1.23	1.46	2.88	1.48	4.88	5.48	5.09	5.22	4.47	4.88	3.08	0.74	11.84	15.79	12.43	3.66	43.72
Madison Barracks	2.35	1.85	2.57	2.15	1.44	4.70	2.79	1.85	2.66	6.91	2.44	2.06	6.16	9.34	12.01	6.26	33.77
Fort Niagara	5.61	2.27	2.74	2.81	2.39	5.67	4.23	1.49	4.72	2.24	1.54	1.36	7.94	11.39	8.50	9.24	37.07
Buffalo Barracks	3.52	1.70	3.28	3.51	1.65	2.86	3.77	2.90	7.10	7.76	3.27	3.38	8.44	9.53	18.13	8.60	44.70
Alleghany Arsenal	2.70	3.31	3.27	2.33	4.05	3.83	1.87	2.32	6.44	3.46	2.87	2.26	10.65	8.02	12.77	8.27	39.71
Fort Mifflin	1.98	1.92	4.45	1.58	3.16	1.74	4.01	6.03	4.95	2.84	4.08	4.30	9.19	11.78	11.87	8.20	41.04
Fort McHenry	1.60	2.20	3.80	2.90	3.55	0.90	5.40	7.82	10.50	1.97	4.25	3.90	10.25	14.12	16.72	7.70	48.79
Fort Severn	....	....	3.00	2.59	5.71	1.24	6.28	5.99	10.37	2.64	4.96	4.26	11.30	13.51	17.97	....	....
Fort Monroe	0.51	4.00	3.30	3.10	6.20	2.20	3.70	8.60	3.20	4.50	2.20	5.80	12.60	14.50	9.90	10.31	47.31
Fort Moultrie	2.07	2.09	10.52	0.02	2.38	3.24	5.54	7.76	5.39	0.65	0.55	2.61	12.92	16.52	6.59	6.77	42.80
Oglethorpe Barracks	1.27	2.03	12.51	0.84	2.01	5.69	5.33	7.16	1.54	0.60	0.96	3.57	15.36	18.18	3.10	4.26	40.90
Fort Shannon	1.87	3.79	11.28	2.12	2.09	5.31	5.70	5.18	1.50	2.39	0.28	1.76	15.39	16.19	4.17	7.42	43.17
Key West Barracks	....	....	....	0.00	1.03	1.85	1.20	2.99	4.65	6.83	0.90	1.31	....	6.04	12.38	....	....
Fort Brooke	3.37	5.70	7.20	1.30	2.00	6.90	8.61	6.60	9.90	2.60	0.80	1.30	10.50	22.11	13.30	10.37	56.28
Camp Barrancas	2.54	2.77	7.85	5.86	0.70	13.04	4.95	7.04	5.87	1.46	5.78	4.30	14.41	25.03	13.11	9.61	62.16
Fort Morgan	2.11	*1.22	6.70	2.17	0.01	3.49	....	....	....	....	....	....	8.88	....	....	....	....
Mount Vernon Arsenal	3.81	5.90	9.22	5.17	0.72	16.67	6.11	2.18	3.49	5.04	6.27	11.80	15.11	24.96	14.80	21.51	76.38
Pass Christian	....	....	....	....	....	....	8.70	2.39	11.19	2.39	....	....	....	....	....	....	....
New Orleans Barracks	4.00	3.80	5.31	2.67	0.45	14.57	....	....	....	....	1.93	6.02	8.43	....	....	13.82	....
Fort Pike	....	....	....	4.26	1.55	29.56	18.22	6.01	15.26	4.14	6.49	7.31	*5.81	53.79	25.89	*7.31	*92.80
Fort Wood	....	....	....	1.50	0.22	18.24	8.61	2.04	5.66	2.39	6.77	6.42	*1.72	28.89	14.82	*6.42	*51.85
Baton Rouge	2.06	2.39	6.54	3.08	2.78	7.62	8 20	2.57	9.16	2.58	4.23	9.81	12.40	18.39	16.02	14.26	61.07
Fort Jesup	2.20	1.41	3.25	5.60	4.42	3.30	7.66	1.34	2.64	5.79	8.30	7.08	13.27	12.30	16.73	10.69	52.99
Fort Washita	....	....	....	....	....	....	....	0.60	8.61	3.80	7.56	1.85	....	....	19.97	.....	....
Fort Towson	2.78	0.25	3.35	7.10	9.26	1.91	4.40	5.72	4.40	6.56	9.37	0.80	19.71	12.03	20.33	3.83	55.90
Fort Smith	1.51	0.26	2.29	5.49	4.85	6.80	3.26	2.37	3.42	2.14	3.51	2.07	12.63	12.43	9.07	3.84	37.97
Fort Gibson	7.40	0.70	2.31	2.71	2.59	3.32	2.30	8.18	2.11	2.15	1.94	0.90	6.61	13.80	6.20	9.00	35.61
Fort Scott	4.98	0.20	1.75	4.46	6.10	8.46	5.34	3.30	4.42	0.69	3.38	1.45	12.31	17.10	8.49	6.63	44.53
Jefferson Barracks	2.27	1.75	2.30	4.52	3.01	2.12	2.60	0.97	5.76	1.65	4.16	1.47	9.83	5.69	11.57	5.49	32.58
St. Louis Arsenal	1.94	1.30	2.29	4.64	4.95	3.53	4.13	0.76	2.02	1.50	2.50	1.50	11.88	8.42	6.02	4.74	31.06
Dearbornville Arsenal	2.60	2.11	1.80	1.20	2.83	5.03	2.11	....	...	....	....	....	5.83	....	....	....	....
Detroit Barracks	1.91	1.99	1.85	2.05	3.16	5.36	2.32	1.46	2.20	1.90	1.30	2.07	7.06	9.20	5.40	5.98	27.64
Fort Gratiot	2.72	2.64	2.23	2.15	1.68	4.06	2.08	1.82	3.55	2.73	2.12	1.68	6.06	7.96	8.40	7.04	29.46
Fort Brady	2.07	1.06	0.68	1.45	2.42	3.14	2.53	0.41	3.00	5.72	3.19	1.58	4.55	6.08	11.91	4.71	27.25

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1843.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Winnebago	0.72	0.62	0.39	2.14	4.18	4.07	1.20	1.22	4.41	0.60	2.67	0.58	6.71	6.49	7.68	1.92	22.80
Fort Crawford	0.70	0.93	0.58	1.60	2.82	3.10	2.20	4.13	4.90	1.33	2.82	0.47	5.00	9.43	9.05	2.10	25.58
Fort Snelling....................	1.15	1.46	0.82	0.75	3.12	5.22	2.09	1.84	5.14	0.50	1.43	0.27	4.69	9.25	7.07	2.88	23.89
Fort Leavenworth	0.12	0.10	1.35	5.53	2.29	0.52	0.57	0.13	3.19	1.04	0.05	1.05	9.17	1.22	4.28	1.27	15.94
Fort Croghan	1.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Note.—Entries marked thus (*) are of incomplete amounts, sufficiently near to be useful for reference.

At *Fort Adams* the quantity is undoubtedly over measured.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Hancock Barracks...	132	233	98	42	55	36	28	32	68	41	39	53
Fort Sullivan........	172	193	66	39	9	15	7	67	41	103	75	49
Fort Constitution....	183	182	65	37	27	45	20	12	55	34	75	87
Watertown Arsenal..	166	199	61	37	20	32	26	24	13	82	81	91
Fort Adams.........	200	165	91	33	43	49	31	27	26	56	44	67
Fort Trumbull.......	164	201	97	32	36	42	13	27	16	70	26	125
Fort Columbus	159	206	90	19	14	72	10	37	9	53	22	139
Fort Hamilton.......	173	192	76	23	31	47	32	23	29	45	39	54
West Point	185	180	83	30	24	9	2	20	32	17	19	120
Watervliet Arsenal ..	151	214	66	42	28	3	9	20	117	21	106	53
Plattsburg Barracks..	220	145	85	49	21	36	2	48	14	74	6	152
Madison Barracks....	130	235	79	54	7	40	10	66	59	112	16	69
Fort Ontario	138	227	90	57	22	44	18	42	33	70	69	39
Fort Niagara........	119	246	90	34	21	62	26	21	26	80	53	68
Buffalo Barracks.....	151	214	115	67	28	41	12	15	12	147	54	35
Alleghany Arsenal...	142	223	101	32	41	27	15	6	7	28	44	64
Carlisle Barracks	205	160	91	19	21	17	73	29	30	19	101	37
Fort Mifflin.........	217	148	107	17	11	66	12	31	11	97	40	89
Fort McHenry	190	175	101	19	33	54	16	33	15	62	61	73
Fort Severn.........	202	163	92	7	35	13	6	37	47	30	30	79
Fort Monroe	188	177	118	6	7	62	53	34	13	86	37	67
Fort Macon.........	259	106	109	1	40	67	11	29	32	91	25	58
Fort Johnston........	265	100	....	....	28	47	33	17	36	49	24	11
Augusta Arsenal.....	241	124	91	2	38	38	8	30	50	105	12	75
Fort Moultrie	239	126	84	0	30	46	89	21	36	36	81	22
Oglethorpe Barracks .	217	148	104	0	35	57	32	41	60	45	30	33
Fort Marion	240	125	92	0	23	108	14	57	13	32	23	47
Fort Brooke.........	255	110	125	0	31	71	41	48	32	45	22	27
Camp Barrancas.....	170	195	110	0	36	63	36	58	19	71	19	47
Mt. Vernon Arsenal..	228	137	118	1	19	116	3	88	9	66	3	81
Fort Pike...........	198	167	115	0	23	77	47	71	24	25	32	40
Fort Wood..........	194	171	118	1	94	18	92	8	82	8	46	5
New Orleans........	154	211	115	1	....	....	....	....	....	....	....	....
Baton Rouge........	240	161	125	0	75	21	104	30	58	15	19	16
Fort Jesup..........	176	189	121	3	53	54	21	37	138	32	5	19
Fort Washita	222	143	76	4	17	69	6	80	7	99	9	58
Fort Towson........	182	183	109	4	44	72	51	49	19	14	13	58
Fort Smith..........	199	166	101	9	3	48	36	37	9	43	14	42
Fort Gibson.........	239	126	68	6	20	70	53	143	23	20	8	21
Fort Scott...........	192	173	111	9	26	52	41	46	52	45	34	41
Jefferson Barracks ...	179	186	93	26	16	29	28	57	29	38	68	77
St. Louis Arsenal	203	162	57	20	35	38	54	47	29	39	71	42
Detroit Barracks.....	109	256	82	47	31	75	22	21	48	98	30	33
Fort Gratiot.........	143	222	105	64	12	74	13	49	30	94	35	39
Fort Mackinac.......	151	214	52	66	32	29	70	21	16	17	76	98

OBSERVATIONS FOR 1843.

WINDS.

No. of observat'ons and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
221	572	145	399	113	289	127	322	272	751	163	479	155	546	214	744
34	128	60	293	28	66	270	767	165	364	413	1231	298	892	195	718
107	188	182	458	80	205	49	141	220	426	138	313	302	610	349	829
80	130	129	260	104	201	96	206	54	123	327	689	323	554	363	634
174	677	196	977	125	519	110	360	104	279	224	954	175	620	267	1039
144	341	167	473	52	190	109	364	64	136	279	786	104	274	502	1356
57	85	289	381	41	59	149	249	38	74	212	270	87	173	557	1182
123	427	187	464	127	268	91	176	118	179	182	457	156	513	215	938
97	201	35	58	9	11	80	173	129	208	68	111	77	134	482	1110
111	261	11	25	35	93	81	279	467	1416	86	166	425	1178	214	593
86	215	143	303	8	16	192	567	55	230	294	956	24	70	610	1376
30	108	160	606	42	125	266	796	235	866	448	1423	62	242	278	1460
88	245	176	460	72	170	170	395	132	292	279	556	277	707	157	517
84	289	249	811	102	295	85	244	104	213	317	962	213	591	271	766
112	322	163	451	47	99	62	150	50	147	589	2027	218	728	141	457
163	200	109	156	60	86	22	41	26	62	111	307	177	528	256	775
86	95	70	75	291	319	117	123	119	144	75	87	405	521	150	205
43	81	263	643	48	109	123	296	45	106	390	888	153	392	356	816
131	239	218	478	64	129	133	308	61	133	247	584	243	551	294	719
140	490	53	217	23	65	148	455	190	583	121	313	119	301	318	1080
30	65	247	600	211	525	137	257	53	98	342	766	148	312	268	743
160	484	267	781	43	99	117	289	128	377	363	1221	101	362	233	748
111	116	187	212	132	134	67	67	143	143	195	197	97	108	45	58
151	211	154	242	32	61	119	171	199	306	421	599	49	70	301	532
119	300	183	616	356	1143	82	262	145	482	142	508	325	1010	88	269
139	245	228	487	126	310	163	427	239	511	187	465	121	333	132	306
93	112	432	627	57	76	227	299	51	57	129	299	93	115	187	255
122	215	284	649	165	254	193	293	128	202	170	370	88	195	107	223
144	424	254	654	145	499	232	656	77	212	285	824	78	218	189	552
78	171	462	794	12	15	352	577	36	57	265	427	13	18	325	705
93	321	309	811	189	428	283	680	94	261	99	322	127	335	160	490
375	521	70	123	367	529	33	64	327	448	34	43	184	244	18	41
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
300	623	83	167	415	791	121	271	232	398	62	104	78	129	64	139
212	369	215	298	84	131	147	188	553	790	127	186	18	23	78	167
67	197	275	465	23	35	322	644	26	67	397	904	38	90	230	539
174	340	287	367	202	329	196	316	76	172	58	109	53	91	232	446
10	30	192	482	143	334	146	360	37	98	170	423	57	134	167	559
80	190	282	460	211	300	571	936	91	211	81	106	31	58	83	152
105	239	210	407	164	293	182	391	208	493	181	419	134	269	164	403
66	109	115	184	111	211	229	449	115	225	152	343	272	553	308	764
139	208	154	244	218	324	188	350	115	203	156	315	283	589	167	359
126	270	300	850	87	191	84	198	192	493	392	1195	120	334	131	394
50	148	297	812	53	102	196	454	119	309	375	932	139	283	157	372
126	256	118	254	280	790	83	225	64	210	66	192	305	744	393	1044

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Brady..........	138	227	94	43	39	17	72	48	29	24	59	64
Fort Winnebago.....	183	182	68	58	27	18	22	27	45	23	49	73
Fort Atkinson	173	192	68	63	36	41	24	20	33	38	31	109
Fort Crawford.......	181	184	70	48	10	16	11	58	24	80	16	149
Fort Snelling........	167	198	68	37	21	23	11	47	52	84	22	73
Fort Leavenworth ...	206	159	71	21	36	29	20	31	83	37	31	70

OBSERVATIONS FOR 1843.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
156	480	69	155	286	668	192	401	117	256	95	283	237	497	256	896
109	316	72	213	86	223	106	269	178	449	92	267	196	602	291	1019
144	361	163	340	95	197	79	181	131	325	153	344	123	316	437	897
41	59	65	93	44	61	234	451	97	179	320	474	63	116	578	1071
84	238	90	216	43	118	189	448	208	489	335	726	88	180	293	731
146	326	116	248	82	158	123	373	333	867	147	441	124	273	277	765

MONTH OF JANUARY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	0.90	3.58	14.97	6.35	6.45	48	—22	41.5	28.4	39	156	6	15	11	38
Fort Sullivan	10.96	15.74	21.32	16.64	16.17	45	—10	28.8	26.1	5	22	8	48	0	0
Fort Preble	11.12	13.12	20.12	13.09	14.36	38	—13	13.6	27.3	32	98	5	17	2	8
Fort Constitution	14.64	15.51	23.80	17.45	17.85	41	— 6	23.1	23.8	10	20	1	3	10	22
Watertown Arsenal	12.25	15.96	23.58	15.96	16.94	48	— 8	21.0	24.9	1	2	3	12	7	15
Fort Adams	20.63	23.63	27.60	23.30	23.79	48	3	24.2	20.7	18	68	8	43	3	9
Fort Trumbull	17.45	20.07	26.19	20.12	20.96	46	— 3	25.0	23.9	4	12	6	21	7	22
Fort Columbus	22.35	25.42	29.51	25.78	25.76	47	3	21.2	22.7	9	5	31	32	4	5
Fort Hamilton	22.84	24.74	31.36	26.22	26.29	49	0	22.7	26.2	37	138	22	54	6	12
West Point	16.06	17.35	23.58	19.41	19.10	44	— 4	24.9	23.1	12	90	0	0	1	1
Watervliet Arsenal	8.45	15.00	19.96	13.19	14.15	40	—22	25.8	36.1	36	63	3	5	1	1
Plattsburg Barracks	7.12	8.96	15.38	9.96	10.33	42	—18	31.6	28.3	0	0	15	35	1	2
Madison Barracks	9.26	11.28	17.30	13.12	12.74	40	— 6	27.2	18.7	1	4	50	207	8	33
Fort Ontario	15.40	16.60	20.70	16.90	17.40	52	— 7	34.6	24.4	9	41	48	128	0	0
Fort Niagara	20.67	22.48	24.45	21.06	22.17	44	2	21.8	20.1	23	74	14	26	6	7
Buffalo Barracks	20.10	23.12	25.28	21.10	22.40	45	1	22.6	21.4	12	36	21	67	7	24
Alleghany Arsenal	22.51	23.19	30.83	25.38	25.48	54	2	29.5	23.4	11	28	18	21	21	15
Carlisle Barracks	20.38	26.12	30.13	23.67	25.07	40	0	14.9	25.0	3	3	22	22	25	25
Fort Mifflin	24.42	27.32	31.74	29.64	28.28	42	6	13.7	22.2	4	7	26	55	8	21
Fort McHenry	23.24	30.30	33.19	29.16	29.22	48	5	18.7	24.2	25	66	17	36	18	30
Fort Severn	26.41	31.90	34.29	28.90	30.35	48	8	17.6	22.3	9	30	8	28	5	11
Fort Monroe	32.23	35.90	39.80	32.20	35.03	57	13	21.9	22.0	5	7	12	25	23	52
Fort Macon	40.70	43.22	46.00	42.33	44.08	60	19	15.9	25.0	26	86	0	0	8	20
Fort Johnston	37.12	44.12	50.00	43.03	43.57	69	20	25.4	23.5	16	31	36	56	8	11
Augusta Arsenal	40.19	43.54	50.77	44.64	44.78	62	16	17.2	28.7	10	14	10	12	4	4
Fort Moultrie	47.22	48.32	53.32	51.46	50.08	68	24	17.9	26.0	6	22	26	78	18	50
Oglethorpe Barracks	43.50	47.70	55.90	48.90	49.00	66	22	17.0	27.0	16	17	29	32	13	13
Fort Marion	52.00	59.02	62.02	55.03	57.02	78	25	20.9	32.0	1	1	34	36	0	0
Fort Brooke	55.48	59.00	67.27	62.32	61.02	76	32	14.9	29.0	0	0	33	39	12	70
Camp Barrancas	52.12	56.25	60.96	55.76	56.27	72	30	15.7	26.2	37	127	8	25	37	143
Fort Pike	52.41	55.90	60.90	55.58	56.20	75	34	18.8	22.2	6	14	33	73	30	51
Fort Wood	52.50	58.23	63.52	56.13	57.60	79	35	21.4	22.6	30	34	1	1	43	49
New Orleans	53.23	60.16	63.77	57.00	58.54	76	37	17.4	21.5	6	16	13	33	23	58
Baton Rouge	52.41	57.93	63.32	55.74	57.35	74	34	16.6	23.3	38	40	9	10	16	19
Fort Jesup	46.22	51.13	62.22	51.70	52.82	71	28	18.1	24.8	3	5	41	54	5	6
Fort Towson	38.74	41.77	52.90	44.16	44.40	73	24	28.6	20.4	9	9	29	29	26	26
Fort Washita	40.10	43.90	51.70	44.40	45.02	72	28	26.9	17.0	21	45	28	46	9	18
Fort Smith	32.38	37.12	47.12	36.35	38.24	73	20	34.7	18.2	0	0	29	66	16	43
Fort Gibson	36.40	39.35	47.37	39.58	40.67	77	19	36.3	21.6	2	3	9	16	23	18
Fort Scott	27.19	30.68	34.87	29.48	30.55	47	8	16.4	22.5	14	33	13	30	20	46
Jefferson Barracks	28.77	29.06	34.64	32.83	31.32	54	11	22.6	20.3	9	20	5	13	18	55
St. Louis Arsenal	26.32	31.41	37.16	30.87	31.44	56	8	24.5	23.4	1	3	8	10	29	39
Detroit Barracks	19.83	24.16	27.25	22.51	23.43	44	—12	20.5	35.4	22	70	12	22	18	46
Fort Gratiot	19.50	22.20	27.50	21.10	22.57	44	— 8	21.4	30.5	1	2	9	24	12	18
Fort Mackinac	13.80	15.16	18.06	17.90	16.23	34	—13	17.7	29.2	16	37	14	22	18	36
Fort Brady	7.67	8.93	15.54	9.90	10.51	32	—34	21.4	44.5	14	39	8	16	26	55
Fort Winnebago	13.41	15.00	21.67	16.19	16.57	38	— 8	21.4	24.5	12	33	3	13	10	41

MONTH OF JANUARY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	19	1	2	3	11	31	110	28	112	5.06	4.74	5.32	5.32	5.12	15	16	1	6	2.80	
16	67	0	0	49	198	17	49	29	121	6.48	6.82	5.70	5.06	6.01	20	11	4	2	1.95	
0	0	2	9	32	74	9	28	42	157	5.40	4.70	4.70	6.10	5.22	15	16	5	6	3.43	
0	0	5	10	8	24	23	51	67	182	5.06	5.67	5.38	6.38	5.62	19	12	6	5	2.83	
3	7	2	6	23	76	20	48	60	172	7.95	8.09	8.23	8.57	8.21	19	12	3	7	3.51	
3	3	5	19	14	59	25	87	48	238	5.80	6.00	6.12	5.93	5.96	19	12	6	2	5.85	
4	12	4	16	10	31	10	19	79	234	4.54	4.64	5.25	6.22	5.41	18	13	7	6	5.92	
11	13	1	5	3	1	12	40	53	135	5.35	5.35	5.51	5.00	5.30	18	13	5	4	2.66	Therm. protected.
9	16	3	5	5	13	3	16	39	131	6.78	5.19	4.64	5.68	5.57	18	13	4	4	2.97	" "
7	5	3	3	2	1	9	4	90	135	5.80	5.41	4.90	6.83	5.73	17	14	4	6	5.25	" "
0	0	11	33	10	22	27	86	36	103	5.22	5.16	4.74	6.25	5.34	18	13	3	3	....	
15	40	4	13	32	117	2	6	55	123	2.25	3.32	4.61	2.83	4.25	6	25	2	4	0.84	
15	67	5	23	9	59	5	25	31	147	3.18	3.80	3.25	3.22	3.36	12	19	6	9	2.74	
34	78	7	15	14	31	4	4	8	19	1.20	1.20	1.30	2.40	1.52	1	30	4	3	1.43	
12	25	23	30	20	49	16	36	10	45	1.25	1.54	2.96	2.25	2.00	3	28	13	12	1.80	
8	29	7	19	23	103	32	119	15	52	1.16	2.40	2.80	2.20	2.14	4	27	8	15	2.40	
5	6	2	2	10	21	25	60	32	77	2.58	2.48	2.70	3.70	2.68	10	21	9	3	2.20	
0	0	0	0	0	0	47	81	25	36	4.74	5.35	5.29	5.77	5.28	15	16	6	5	....	
2	6	1	1	23	40	9	31	51	115	5.29	5.83	5.06	5.90	5.52	18	13	7	3	5.60	
4	12	4	5	0	0	36	110	20	55	5.12	5.40	5.16	5.20	5.22	15	16	6	3	3.65	
12	38	15	31	10	34	18	55	47	181	5.03	5.03	5.12	5.45	5.15	18	13	7	3	4.22	
10	22	5	11	10	28	15	39	44	100	3.21	3.27	4.20	5.10	3.94	12	19	10	2	3.40	
5	18	14	55	11	46	18	51	39	126	4.90	5.70	5.23	5.82	5.41	18	13	11	2	6.90	
0	0	11	9	15	52	17	29	21	24	3.26	3.90	4.27	3.87	3.82	14	17	6	0	3.40	
8	8	15	19	39	59	21	47	17	23	4.32	4.64	4.51	4.45	4.48	15	16	11	0	....	
1	6	1	3	7	24	39	124	26	81	4.06	4.22	1.70	4.74	4.18	13	18	11	0	2.66	Therm. protected
5	6	7	8	16	21	20	39	18	24	4.06	4.12	3.93	4.35	4.10	11	20	15	0	3.61	
6	5	0	0	40	38	3	3	40	48	5.01	5.04	5.09	6.09	5.30	21	10	4	0	1.94	
10	9	17	12	40	48	1	1	11	22	3.32	5.41	7.74	7.16	5.90	17	14	2	0	1.10	
1	4	9	38	0	0	30	115	2	6	4.06	4.38	4.61	3.77	4.20	13	18	12	0	5.76	
16	33	3	7	12	32	8	24	26	88	3.38	4.64	5.50	5.25	4.69	14	17	16	0	4.03	
0	0	17	22	5	7	28	29	0	0	4.12	4.74	5.22	3.93	4.50	15	16	14	0	4.85	
24	46	1	2	25	59	5	7	17	72	3.25	3.77	4.35	4.64	4.00	15	16	10	0	4.41	
13	10	10	8	15	16	14	16	9	12	3.93	3.64	4.19	4.29	4.01	12	19	11	0	5.40	
35	45	15	15	13	17	1	1	10	10	3.93	4.00	5.70	5.16	4.69	16	15	15	0	4.10	
5	6	2	4	4	5	12	15	37	41	4.12	3.58	4.38	5.09	4.26	13	18	15	1	3.45	
5	13	14	33	16	36	19	44	12	28	4.20	4.40	4.90	5.20	4.67	15	16	7	0	1.77	
6	12	1	4	9	32	23	67	7	21	3.19	3.32	4.45	4.29	3.81	10	21	9	1	1.30	
62	121	5	10	14	48	2	5	7	4	0.19	3.97	4.00	1.61	2.44	8	23	4	0	0.76	Therm protected.
9	18	10	39	10	39	39	96	9	22	3.00	2.97	3.35	4.22	3.38	8	23	7	5	2.05	
23	55	15	27	9	16	27	82	18	52	2.48	3.80	2.93	3.90	3.02	24	7	5	6	2.19	
21	25	10	16	18	36	14	29	7	6	4.48	4.87	4.48	3.48	4.32	13	18	4	4	4.88	
7	8	4	10	30	82	5	15	20	40	1.19	1.09	2.29	4.67	2.31	4	27	9	7	2.25	
25	54	14	30	20	50	13	30	30	84	1.10	2.10	2.60	1.70	1.87	2	29	5	15	2.73	
32	92	7	12	3	8	11	45	23	59	1.25	1.77	2.45	1.80	1.81	3	28	0	11	....	
38	103	1	4	6	16	9	17	22	71	1.87	2.90	2.25	3.90	2.73	3	28	0	13	1.96	
17	59	6	18	9	38	24	78	15	63	3.03	3.61	4.25	3.48	3.59	13	18	4	11	1.51	

MONTH OF JANUARY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Crawford.........	13.25	15.26	22.30	18.21	17.25	38	— 6	20.7	23.2	0	0	0	0	6	7
Fort Atkinson.........	10.09	14.45	19.41	13.32	14.32	37	—12	22.6	26.3	33	52	16	28	18	33
Fort Snelling..........	6.09	7.64	14.51	9.41	9.41	38	—18	28.5	27.4	3	9	11	33	1	2
Fort Des Moines.......	16.77	19.54	27.45	20.58	21.08	45	— 4	23.9	25.0	30	72	13	29	9	16
Fort Leavenworth......	23.02	25.17	30.31	25.13	25.88	46	3	20.1	22.8	7	16	10	16	10	20

MONTH OF JANUARY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
26	71	3	3	19	32	4	9	66	98	3.22	4.12	4.16	3.25	3.68	15	16	10	9	2.60	
41	57	1	5	0	0	3	5	12	25	3.03	3.38	3.58	3.48	3.36	10	21	4	11	....	
30	82	8	15	43	94	2	7	26	79	3.45	2.93	3.35	5.00	3.90	13	18	4	11	1.50	
25	53	13	34	6	30	6	24	22	72	4.29	4.25	4.12	4.06	4.18	13	18	9	5	....	
13	28	17	32	16	36	13	27	38	69	3.11	4.50	4.90	4.50	4.25	13	18	1	1	0.50	

MONTH OF FEBRUARY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	10.17	15.69	27.97	18.45	18.07	46	—13	27.9	31.0	21	68	11	32	12	36
Fort Sullivan	19.34	25.41	33.34	24.37	25.61	45	— 2	19.3	27.6	0	0	5	20	0	0
Fort Preble	16.41	19.51	28.17	23.20	21.82	29	— 8	17.1	29.8	31	106	11	42	1	2
Fort Constitution	19.86	22.32	32.89	26.20	25.32	48	2	22.6	23.3	26	60	16	49	1	1
Watertown Arsenal	17.17	24.62	33.13	23.31	24.56	47	— 6	22.4	30.5	10	21	21	59	3	4
Fort Adams	26.00	29.00	33.00	28.10	29.02	44	12	14.9	17.0	11	46	11	41	9	29
Fort Trumbull	21.17	26.24	35.34	26.17	27.23	48	4	20.6	23.2	23	62	6	24	7	25
Fort Columbus	25.72	28.64	35.50	29.10	29.74	48	8	18.2	21.7	11	6	35	48	1	2
Fort Hamilton	26.92	29.75	31.55	31.06	29.82	48	10	18.1	19.8	8	32	30	69	3	6
West Point	21.17	24.06	31.79	27.10	26.03	46	0	19.9	26.0	0	0	1	2	0	0
Watervliet Arsenal	15.55	23.06	33.50	24.00	24.03	48	— 8	23.9	32.0	32	66	2	4	1	2
Plattsburg Barracks	13.96	18.31	27.24	19.20	19.68	44	— 8	24.7	27.6	1	1	36	103	2	10
Madison Barracks	17.50	20.10	24.18	22.17	20.99	40	— 6	19.0	27.0	1	1	23	95	3	10
Fort Ontario	22.00	24.00	30.80	23.00	24.95	54	— 1	29.0	25.9	3	15	36	109	1	1
Fort Niagara	24.55	29.89	32.58	27.79	28.70	46	6	17.3	22.7	20	72	2	6	14	23
Buffalo Barracks	23.21	27.03	32.22	27.08	27.38	43	2	15.6	25.3	5	16	15	46	3	8
Alleghany Arsenal	26.17	30.68	38.31	31.24	31.35	56	0	24.6	31.3	12	21	28	20	14	11
Carlisle Barracks	25.93	29.72	38.13	31.27	31.26	48	2	16.7	29.2	6	12	3	3	37	31
Fort Mifflin	25.93	32.41	38.48	31.27	32.02	54	9	21.9	23.0	7	10	26	49	2	5
Fort McHenry	25.70	31.18	39.27	32.24	32.10	55	6	22.9	26.1	19	25	18	46	3	4
Fort Severn	27.34	32.68	39.20	32.20	32.85	58	12	25.1	20.8	14	55	10	31	0	0
Fort Monroe	38.10	36.21	43.20	39.19	37.92	59	17	21.0	20.9	11	27	15	35	24	53
Fort Macon	40.20	44.35	46.31	43.25	43.53	58	25	14.5	18.5	28	94	5	21	12	34
Fort Johnston	40.21	44.13	53.25	45.16	45.69	66	23	20.3	22.6	26	37	34	80	2	3
Augusta Arsenal	44.34	49.20	58.13	53.13	51.20	72	27	20.8	24.2	9	9	9	9	16	21
Fort Moultrie	47.31	50.13	56.58	52.82	51.71	66	30	14.2	21.7	6	16	22	72	14	34
Oglethorpe Barracks	43.90	50.69	62.41	54.70	52.92	74	28	21.0	24.9	13	9	15	16	30	35
Fort Marion	50.69	61.69	61.14	55.31	57.21	69	34	11.7	23.3	27	67	41	111	8	21
Key West	63.75	72.89	71.72	66.44	68.70	81	54	12.3	14.7	25	39	17	28	28	32
Fort Brooke	53.44	59.06	67.62	60.69	60.20	74	38	13.8	22.2	0	0	48	38	22	19
Camp Barrancas	50.75	56.62	64.68	57.58	57.41	72	34	14.5	23.4	19	47	15	42	6	19
Fort Pike	51.03	57.03	65.34	56.79	57.55	76	38	18.4	19.5	12	24	35	60	9	15
Fort Wood	51.37	59.10	66.57	56.41	58.36	78	38	19.6	20.3	33	39	0	0	38	38
New Orleans	51.30	60.70	67.53	57.60	59.28	80	38	20.7	21.2	9	18	11	23	27	64
Baton Rouge	50.00	60.89	69.75	57.31	59.49	80	33	20.5	26.4	23	20	19	22	32	43
Fort Jesup	47.58	50.38	61.55	56.00	53.88	78	31	24.1	22.8	0	0	51	61	0	0
Fort Towson	40.67	42.92	63.20	50.10	49.22	78	23	28.7	26.2	13	13	18	18	13	13
Fort Washita	42.31	49.69	61.41	51.24	51.16	77	26	25.8	25.1	15	54	24	32	6	10
Fort Smith	36.03	45.34	58.03	43.68	45.77	76	20	30.2	25.7	0	0	17	36	3	8
Fort Gibson	38.87	46.63	57.13	46.62	47.31	75	18	27.6	29.3	2	5	7	14	27	18
Fort Scott	30.41	37.06	42.62	36.72	36.70	70	0	33.3	36.7	15	38	9	19	4	8
Jefferson Barracks	33.48	34.58	42.82	40.01	37.72	57	18	19.2	19.7	4	5	11	15	6	12
St. Louis Arsenal	29.72	35.10	44.96	36.51	36.57	62	14	25.4	22.5	13	11	0	0	11	14
Detroit Barracks	20.69	31.69	36.82	28.27	29.37	52	0	26.6	29.3	17	39	20	49	3	4
Fort Gratiot	23.30	28.40	36.00	27.60	28.82	53	6	24.1	22.8	6	19	18	41	2	3
Fort Mackinac	19.96	23.68	28.06	22.75	23.61	39	— 5	15.3	28.6	12	17	11	12	14	30
Fort Brady	14.65	18.72	27.82	20.48	20.42	42	—20	21.5	41.4	6	8	5	8	32	62

MONTH OF FEBRUARY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	18	22	69	8	32	19	72	17	69	3.72	3.75	4.13	4.78	4.09	12	17	0	5	0.79	
13	29	2	6	45	119	31	56	20	64	5.44	5.03	5.06	5.17	5.15	16	13	2	5	1.65	
2	3	11	22	43	96	8	17	9	22	4.80	5.10	5.20	5.40	5.27	17	12	6	6	0.75	
1	2	10	17	9	11	27	37	26	53	4.72	5.79	5.27	5.48	5.31	16	13	9	9	1.43	
3	4	2	5	29	59	15	37	34	88	8.00	9.11	7.82	8.68	8.40	18	11	3	7	1.64	
6	20	1	2	5	13	35	91	38	119	4.10	5.00	4.10	5.00	4.55	16	13	3	3	1.24	
8	26	3	5	7	14	8	19	54	102	5.20	5.50	4.64	5.85	5.30	15	14	3	5	1.81	
7	2	2	1	9	12	31	39	20	37	6.10	6.60	6.00	5.60	6.07	17	12	3	5	1.03	
4	8	2	2	4	12	32	93	33	81	6.86	6.06	5.24	6.44	6.15	20	9	2	5	0.93	
7	2	17	6	0	0	13	11	78	104	5.27	4.82	4.96	5.96	5.25	17	12	0	6	3.10	
1	2	12	39	11	22	23	64	34	83	3.62	3.89	4.44	5.58	4.38	12	17	1	3	....	
25	59	13	40	16	32	0	0	23	38	2.37	3.31	4.34	3.31	3.44	8	21	8	5	0.54	
41	172	8	27	14	54	2	10	24	101	2.70	3.19	3.16	4.24	3.32	10	19	1	13	0.85	
31	51	5	9	19	35	5	10	8	22	2.30	2.80	2.80	3.10	2.55	8	19	2	2	0.19	27 days' observations.
5	24	19	24	23	44	28	72	5	17	3.62	3.89	4.58	4.72	4.20	10	19	8	5	0.53	
4	11	10	25	46	136	21	60	12	42	3.14	3.20	3.06	4.00	3.35	9	20	9	13	0.64	
0	0	0	0	20	32	14	18	28	49	3.48	3.65	3.37	4.48	3.74	10	19	7	4	0.93	
2	1	4	2	0	0	30	27	34	39	5.17	5.30	5.24	5.55	5.31	16	13	1	6	....	
4	9	3	6	28	43	15	33	31	68	6.34	6.07	6.44	5.72	6.14	19	10	1	6	2.00	
6	10	11	9	15	17	23	39	21	63	5.17	5.11	5.27	5.13	5.17	19	10	3	4	1.45	
6	12	24	62	8	19	13	39	41	120	5.65	5.20	5.48	6.00	5.58	18	11	1	8	0.94	
11	17	3	4	15	26	11	16	21	61	5.30	5.21	4.27	6.13	5.22	17	12	4	3	1.50	
5	12	8	21	14	41	12	26	29	112	7.31	7.73	7.51	6.90	7.36	24	5	7	0	3.50	Therm. protected.
0	0	16	23	16	21	12	18	10	33	3.28	5.17	6.11	5.16	4.93	19	10	4	0	1.50	
6	6	2	6	35	60	15	37	24	45	6.27	7.13	6.62	7.34	6.84	21	8	5	0	....	
4	3	12	32	10	29	34	96	14	41	5.00	5.41	3.62	7.06	5.27	17	12	4	0	1.69	
5	5	5	5	7	9	21	26	20	17	3.42	4.75	6.10	5.72	4.99	15	14	5	0	1.10	
5	3	1	3	11	13	6	12	17	41	3.62	5.89	6.27	7.38	5.79	19	10	3	0	1.00	
22	26	13	16	3	4	0	0	5	10	8.62	9.00	8.62	8.68	8.73	27	2	4	0	1.23	
15	10	6	2	8	17	0	0	17	16	5.10	6.75	7.24	6.94	6.50	24	5	6	0	3.30	
23	85	1	5	13	53	4	6	35	107	4.10	5.27	4.89	5.55	4.95	14	15	4	0	0.91	
30	53	0	0	4	6	5	7	21	37	4.00	5.04	7.00	6.55	5.67	20	9	6	0	0.80	
1	3	19	22	0	0	25	25	0	0	3.41	5.06	5.79	7.03	5.32	17	12	4	0	0.41	
5	6	4	15	5	14	5	12	4	11	2.50	5.53	4.90	6.30	4.56	13	16	4	0	0.73	
8	11	8	10	13	17	11	9	2	6	4.72	5.06	2.93	7.06	4.94	14	15	0	0	....	
8	13	27	39	28	32	0	0	2	2	5.79	6.28	7.20	7.17	6.61	23	6	4	0	1.20	
15	17	1	1	6	7	14	14	36	37	5.67	5.60	6.28	6.89	6.11	16	13	6	0	2.08	
13	22	15	47	20	35	11	16	12	29	5.13	6.83	6.07	6.03	6.01	19	10	5	0	2.87	
9	23	3	9	19	37	8	21	15	47	5.34	6.17	5.31	5.96	5.69	16	13	4	1	3.53	
66	75	3	4	4	2	4	4	3	6	0.68	6.62	6.34	1.72	3.71	14	15	4	0	6.07	
7	10	21	42	18	38	22	53	20	35	6.03	6.34	5.62	7.24	6.30	17	12	4	1	1.30	
21	25	9	18	15	22	33	78	17	27	5.72	6.17	5.62	6.06	5.89	19	10	5	2	2.33	
18	5	4	0	13	8	23	24	19	10	6.10	7.27	6.92	5.03	6.33	20	9	2	1	3.76	
10	22	15	34	45	113	5	8	1	6	4.17	3.03	2.89	4.24	3.58	10	19	3	4	0.61	
19	36	9	20	39	96	4	7	19	45	2.40	3.70	3.80	3.10	3.25	9	20	9	10	1.75	
23	33	6	7	7	8	25	49	18	30	1.75	2.65	3.96	2.86	2.80	5	24	0	6	....	
18	38	4	4	9	13	26	45	16	42	2.27	1.82	2.10	3.86	2.51	4	25	2	4	0.43	

MONTH OF FEBRUARY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Winnebago	18.44	23.10	31.96	24.37	24.47	46	— 1	21.5	25.4	7	19	7	19	4	15
Fort Crawford	18.22	23.16	32.26	25.17	24.70	46	— 9	21.3	33.7	0	0	5	6	0	0
Fort Atkinson	16.44	23.93	33.34	20.75	23.61	42	— 6	18.3	29.6	40	66	4	7	14	22
Fort Snelling	16.65	20.82	29.89	21.96	22.33	45	—15	22.6	37.3	1	2	3	9	1	2
Fort Des Moines	29.45	34.70	39.70	32.05	33.97	59	20	25.0	13.9	5	10	11	20	9	13
Fort Leavenworth	26.28	31.24	43.03	34.10	33.66	62	0	28.3	33.6	5	5	12	17	4	4

MONTH OF FEBRUARY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
15	56	14	36	15	50	13	32	12	31	3.24	3.72	4.48	5.86	4.32	13	16	1	5	0.58	
10	26	5	5	27	27	10	20	59	78	4.60	5.20	6.00	6.18	5.49	15	14	6	4	0.87	
17	37	8	19	2	4	7	12	24	49	3.82	4.48	3.72	6.06	4.52	10	19	2	4	....	
14	32	16	46	54	130	6	17	21	62	2.37	3.00	4.72	5.31	4.10	8	21	3	4	0.72	
4	8	2	4	7	17	9	16	33	40	5.40	5.30	5.60	6.55	5.71	11	9	5	2	....	Last 20 days.
9	17	24	32	7	12	24	36	30	49	5.14	5.17	5.23	6.30	5.46	19	10	3	1	1.60	

MONTH OF MARCH, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Hancock Barracks	20.09	25.90	32.35	24.16	25.62	49	— 7	23.3	32.6	18	32	12	23	22	25
Fort Sullivan	27.46	33.09	40.39	32.67	33.40	51	12	17.6	21.4	0	0	10	45	2	2
Fort Preble	27.06	31.00	35.06	31.01	31.03	46	13	14.9	18.0	15	67	21	117	2	8
Fort Constitution	30.25	33.83	39.54	33.06	34.17	57	13	22.8	21.1	14	38	24	81	7	16
Watertown Arsenal	26.12	35.80	41.29	33.42	34.16	59	8	24.8	26.1	10	31	20	83	5	12
Fort Adams	33.16	35.74	38.77	34.80	35.62	48	15	12.3	20.6	12	32	31	112	7	19
Fort Trumbull	31.41	35.61	40.74	33.36	35.28	56	13	20.7	22.2	18	49	16	57	3	15
Fort Columbus	35.26	39.00	43.42	37.48	38.79	54	21	15.2	17.7	12	19	32	37	3	3
Fort Hamilton	32.96	36.12	43.16	39.90	38.04	62	23	23.9	15.0	8	36	42	96	6	13
West Point	33.12	35.87	40.03	35.00	36.00	60	20	24.0	16.0	10	41	6	6	2	2
Watervliet Arsenal	30.96	36.12	41.61	32.48	35.29	58	10	22.7	25.2	24	84	1	4	0	0
Plattsburg Barracks	25.64	30.03	35.19	30.32	30.29	46	10	15.7	20.2	1	1	47	162	1	1
Madison Barracks	27.19	29.67	34.93	30.60	30.60	46	0	15.4	30.6	4	17	36	161	2	6
Fort Ontario	30.10	32.90	36.70	33.70	33.35	50	16	16.6	17.3	3	6	44	112	2	4
Fort Niagara	30.06	35.80	36.74	32.54	33.78	58	17	24.2	16.7	15	39	9	14	34	106
Buffalo Barracks	29.20	33.21	39.11	31.26	33.19	58	20	24.8	13.1	14	37	22	77	6	19
Alleghany Arsenal	36.09	40.90	47.06	38.96	40.75	70	20	29.2	20.7	18	44	19	29	3	3
Carlisle Barracks	34.90	41.12	45.93	42.00	41.00	58	24	17.0	17.0	8	16	0	0	43	60
Fort Mifflin	37.06	42.51	49.00	41.58	42.54	63	25	20.4	17.5	1	1	18	45	7	15
Fort McHenry	34.60	41.70	49.23	43.19	41.93	68	24	26.0	17.9	24	55	13	41	14	41
Fort Severn	37.64	42.16	48.90	43.41	43.03	69	23	25.9	20.0	10	35	8	25	0	0
Fort Monroe	43.16	48.58	55.42	47.77	48.73	75	29	26.2	19.7	6	18	13	30	10	18
Fort Macon	49.09	51.75	54.30	52.52	51.91	66	30	14.0	21.9	7	22	18	78	16	49
Fort Johnston	49.10	54.17	60.00	54.10	54.34	74	31	19.6	23.3	1	2	35	68	1	1
Augusta Arsenal	50.19	54.83	61.90	57.45	56.09	78	36	21.9	20.0	1	1	8	14	7	14
Fort Moultrie	54.35	57.04	61.09	60.01	58.12	70	39	11.8	19.1	6	20	12	35	24	74
Oglethorpe Barracks	50.39	58.64	65.61	54.58	57.30	78	36	20.7	21.3	8	12	9	12	11	17
Fort Marion	56.00	66.06	65.81	59.41	61.82	76	40	15.1	20.9	10	42	15	48	14	36
Key West	67.13	74.93	74.39	67.39	70.96	81	55	10.0	15.9	27	63	28	56	30	53
Fort Brooke	57.58	62.61	70.80	63.12	63.53	80	42	15.8	22.1	5	5	32	32	10	17
Camp Barrancas	56.51	60.32	65.67	61.12	60.90	78	38	17.1	22.9	10	39	12	41	15	49
Fort Pike	56.90	62.54	66.87	60.00	61.58	77	39	15.4	22.5	5	17	21	55	11	22
Fort Wood	55.36	62.58	68.23	60.32	61.62	84	40	22.3	21.6	28	42	0	0	28	35
New Orleans	57.00	65.67	69.80	61.74	63.55	82	42	18.4	21.5	8	13	17	25	6	11
Baton Rouge	54.48	64.00	69.29	59.32	61.77	80	38	18.2	23.7	28	28	22	26	14	14
Fort Jesup	49.58	54.80	65.29	60.38	57.51	86	32	28.4	25.5	4	8	27	52	2	2
Fort Towson	43.58	50.00	62.45	50.90	51.73	79	26	27.2	25.7	21	33	15	15	23	27
Fort Washita	44.51	53.03	62.77	53.45	53.44	82	30	28.5	23.4	6	18	14	24	10	19
Fort Smith	39.19	49.70	58.00	45.61	48.12	78	24	29.8	24.1	1	3	18	49	5	7
Fort Gibson	43.95	49.17	58.50	50.19	50.45	68	30	17.5	20.4	6	28	8	19	36	33
Fort Scott	36.80	44.26	55.90	44.39	45.34	72	22	26.6	23.3	14	34	13	16	16	16
Jefferson Barracks	39.83	42.45	48.70	45.09	44.02	66	26	21.9	18.0	11	35	8	12	14	16
St. Louis Arsenal	36.38	41.29	50.12	40.64	42.11	68	22	25.8	20.1	11	28	8	18	11	11
Detroit Barracks	28.51	35.64	41.80	33.64	34.90	58	8	23.1	26.9	25	79	27	63	14	28
Fort Gratiot	30.32	31.64	40.06	32.48	33.62	56	9	22.3	24.6	11	53	36	102	4	6
Fort Mackinac	21.67	26.93	31.77	24.80	26.29	44	— 3	17.7	29.2	35	66	13	23	12	19
Fort Brady	16.67	23.19	31.16	24.06	23.77	44	— 6	20.2	29.7	18	32	12	23	22	25

MONTH OF MARCH, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
30	61	1	2	0	0	16	38	24	73	3.64	3.22	3.32	4.25	3.60	8	23	3	8	1.66	
19	34	7	7	51	115	18	23	17	54	5.06	5.42	5.42	4.06	4.94	19	12	5	3	2.75	
17	64	16	40	36	84	5	15	12	50	3.01	3.02	4.02	4.90	3.73	13	18	3	4	3.59	
3	5	24	40	10	20	22	48	20	40	3.09	3.48	3.83	3.87	3.54	10	20	5	6	3.60	
9	29	7	22	22	75	21	51	28	87	6.66	6.50	6.76	8.37	7.07	10	21	11	3	4.78	
6	10	13	20	10	18	39	65	6	16	3.32	3.90	3.48	3.80	3.62	10	21	10	2	3.17	
16	50	9	20	20	49	12	24	30	85	3.03	3.12	3.25	4.00	3.35	9	22	11	1	6.01	
13	20	3	7	18	27	16	16	27	45	4.00	5.00	4.64	2.70	4.08	14	17	15	1	4.50	
21	30	6	6	8	17	13	41	20	59	3.67	4.22	4.19	5.03	4.27	15	16	10	2	4.33	
17	17	20	20	3	3	10	15	47	73	3.77	3.96	3.96	5.09	4.18	14	17	11	2	4.20	
11	42	21	70	12	26	29	83	26	85	2.45	3.41	4.32	4.03	3.80	11	20	3	2	2.43	
24	43	9	27	29	80	0	0	13	23	2.54	3.58	5.29	3.22	3.65	12	19	5	3	2.44	
23	87	10	46	23	102	7	22	19	78	2.48	3.35	3.09	3.22	3.03	9	22	4	6	1.91	
24	47	3	10	27	75	7	13	14	34	1.50	2.30	3.70	3.80	2.87	9	22	6	2	1.54	
5	10	17	27	17	35	20	41	7	20	2.54	3.61	3.54	4.48	3.54	9	22	11	3	1.52	
5	12	11	33	45	131	12	45	9	30	2.12	3.00	2.27	3.50	2.72	8	23	8	7	3.06	
9	11	2	2	33	55	20	26	20	67	2.70	3.45	2.83	4.19	3.29	11	20	11	1	3.04	
3	5	11	14	2	3	29	42	28	57	4.16	4.03	4.64	4.06	4.22	12	19	5	2	6.00	
18	43	6	13	25	55	11	23	38	106	5.64	5.74	5.10	4.77	5.31	18	13	10	1	4.15	
13	22	10	21	6	19	23	52	21	66	7.80	7.16	7.20	4.15	6.57	14	17	11	1	3.00	
13	45	29	91	10	28	6	16	48	185	4.16	4.80	4.06	4.38	4.35	14	17	11	0	3.55	
19	34	3	4	30	73	16	37	27	76	5.87	4.74	4.32	4.39	4.83	13	18	13	1	4.50	
3	10	7	14	29	88	15	51	14	65	6.38	6.83	6.90	6.00	6.53	20	10	13	0	3.25	Therm. protected.
2	7	34	61	36	110	7	27	8	25	3.14	4.12	4.23	4.12	3.90	14	17	12	0	4.00	
16	30	11	32	38	68	19	66	24	41	4.29	5.03	4.51	5.58	4.85	15	16	11	0	....	
14	32	4	17	29	115	21	71	14	49	4.25	4.74	4.80	5.35	4.78	14	17	15	0	4.07	
5	7	46	54	13	24	23	50	9	17	4.38	4.45	3.96	4.06	4.21	14	17	9	0	8.77	
11	23	11	20	19	59	33	82	11	36	5.00	6.23	5.77	5.15	5.53	18	13	7	0	4.71	
17	22	9	9	1	1	3	5	8	22	8.03	7.74	8.26	9.00	8.26	27	4	2	0	0.13	
15	15	12	13	38	63	1	4	11	18	6.19	7.58	7.68	6.00	6.86	27	4	2	0	1.80	
20	88	2	7	28	116	16	67	21	69	3.03	3.67	4.19	3.80	3.67	20	11	13	0	7.78	
18	51	2	6	25	90	16	61	26	98	5.80	5.90	5.77	6.00	5.86	19	12	14	0	3.50	
0	0	29	43	0	0	38	42	1	1	4.00	4.58	4.54	5.00	4.53	13	18	12	0	3.48	
13	26	11	34	26	55	16	26	16	38	3.51	4.51	4.45	4.58	4.26	13	18	10	0	3.90	
7	15	15	15	18	27	10	25	10	28	3.80	4.45	4.03	5.90	4.54	14	17	6	0	3.10	
12	23	23	33	26	59	2	12	28	69	6.06	6.29	6.67	6.45	6.36	23	8	7	0	5.30	
14	17	1	2	3	3	15	19	32	64	5.25	5.74	6.48	6.90	6.09	21	10	10	0	4.56	
15	34	33	67	18	41	8	25	20	49	5.77	6.58	6.51	7.09	6.48	21	10	5	1	4.35	
11	30	0	0	14	43	9	28	28	110	5.09	5.25	4.90	5.61	5.21	16	15	10	0	2.41	
68	81	2	5	1	4	1	4	2	5	2.22	4.33	5.67	3.22	3.86	13	18	4	1	1.91	Therm. protected
11	13	11	26	23	43	19	39	17	37	5.48	5.74	5.25	6.09	5.64	20	11	12	0	3.78	
22	43	19	34	8	21	23	53	19	47	4.74	4.38	4.16	4.16	4.36	16	15	11	3	2.50	
20	23	12	12	19	26	28	73	15	28	5.84	7.09	6.54	5.19	6.16	24	7	8	3	3.22	
9	21	12	29	23	51	4	8	10	38	2.45	1.77	2.45	3.70	2.61	4	27	10	8	2.60	
20	40	11	26	22	48	6	22	14	44	2.00	2.29	2.96	2.93	2.54	6	25	9	5	2.77	
22	54	4	5	6	12	17	36	17	42	2.58	3.01	3.87	3.03	3.12	8	23	5	7	....	
30	61	1	2	1	1	16	38	24	73	3.64	3.22	3.32	4.25	3.60	8	23	3	8	1.66	

MONTH OF MARCH, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Winnebago	27.93	33.83	43.58	34.74	35.02	64	8	28.9	27.0	23	78	8	32	7	21
Fort Crawford	31.17	40.11	46.17	33.28	37.68	68	12	30.3	25.6	5	10	10	29	4	8
Fort Atkinson	28.41	34.54	43.19	33.90	35.01	63	9	27.9	26.0	30	81	14	36	10	31
Fort Snelling	25.90	32.54	41.32	32.00	32.94	65	4	22.0	28.9	11	40	16	49	0	0
Fort Des Moines	31.03	38.70	48.67	37.12	38.88	69	12	30.1	26.8	26	71	21	55	3	6
Fort Leavenworth	35.60	41.15	51.10	43.11	40.19	72	22	31.8	18.1	9	41	8	8	3	3

MONTH OF MARCH, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	13	12	41	7	32	10	25	23	86	4.22	4.74	5.09	4.90	4.74	14	17	7	5	1.33	
22	32	12	19	19	40	8	15	44	129	4.22	4.23	4.30	5.40	4.53	15	16	7	2	1.42	
27	50	16	32	7	23	8	15	12	29	4.61	4.80	3.93	5.16	4.62	15	16	3	6	....	
14	31	18	45	35	93	3	7	27	72	4.58	4.90	4.80	4.09	4.59	13	18	3	4	0.97	
5	15	20	46	32	79	4	15	13	39	4.87	4.96	4.54	5.67	5.26	19	12	9	3	....	
28	52	20	48	11	33	10	23	35	108	5.10	4.17	4.10	4.22	4.39	14	17	4	1	3.40	

MONTH OF APRIL, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Hancock Barracks	30.53	40.76	53.30	41.93	41.63	79	3	37.3	37.6	22	81	3	5	6	16
Fort Sullivan	35.73	42.37	58.80	44.90	45.48	70	20	24.5	23.4	0	0	0	0	0	0
Fort Preble	35.00	45.00	50.00	42.00	43.00	65	20	22.0	23.0	8	32	12	39	0	0
Fort Constitution	40.30	47.46	52.13	44.26	45.40	71	21	25.6	24.4	6	12	21	37	10	15
Watertown Arsenal	40.60	51.56	58.73	46.40	49.32	85	19	35.6	30.3	7	24	19	54	16	35
Fort Adams	41.90	50.50	53.33	44.63	47.59	65	28	17.4	19.5	5	11	44	113	10	16
Fort Trumbull	41.23	48.90	57.66	47.43	48.80	76	22	27.2	26.8	14	36	14	49	6	19
Fort Columbus	47.63	53.23	61.63	51.70	53.55	75	27	21.4	26.5	5	5	30	31	4	6
Fort Hamilton	46.40	51.50	55.86	52.30	51.51	74	28	22.4	23.5	4	13	21	44	21	37
West Point	46.43	51.06	61.46	53.20	53.04	82	20	28.9	33.0	6	9	5	5	8	8
Watervliet Arsenal	44.83	54.40	64.47	50.07	53.44	82	8	28.5	45.4	16	42	1	2	0	0
Plattsburg Barracks	40.83	45.63	56.46	48.03	47.74	76	30	28.2	17.7	0	0	41	67	3	3
Madison Barracks	42.80	50.33	54.26	48.36	48.94	71	12	22.0	36.9	3	9	27	98	2	6
Fort Ontario	42.70	48.70	57.60	49.60	49.65	70	16	20.3	33.6	0	0	25	45	1	2
Fort Niagara	41.76	52.06	53.03	46.26	48.28	78	20	29.7	26.2	12	25	24	94	16	36
Buffalo Barracks	43.10	52.21	60.12	48.11	50.88	78	16	27.1	34.8	14	40	15	47	3	8
Alleghany Arsenal	48.46	59.46	71.80	58.36	59.52	86	26	26.4	33.5	14	19	25	25	8	8
Carlisle Barracks	55.43	56.80	64.40	59.60	59.06	82	30	22.9	29.0	7	13	1	1	37	37
Fort Mifflin	45.83	55.26	64.30	52.66	54.51	80	28	25.4	26.5	1	1	45	111	6	15
Fort McHenry	48.28	54.26	62.80	58.00	55.83	78	26	22.1	29.8	25	41	21	53	15	38
Fort Severn	50.43	56.23	62.60	55.53	56.20	80	29	23.8	27.2	18	56	18	62	5	10
Fort Monroe	52.90	60.63	67.26	56.50	59.32	86	35	26.6	24.3	5	7	16	38	34	79
Fort Macon	58.60	63.90	64.27	61.20	62.00	75	40	13.0	22.0	3	11	33	154	16	38
Fort Johnston	58.10	65.21	72.15	63.12	64.64	82	35	17.3	29.6	0	0	84	42	23	63
Augusta Arsenal	60.56	68.03	77.36	70.66	69.15	90	40	20.8	29.1	4	4	12	27	4	5
Fort Moultrie	63.16	67.00	69.90	67.73	66.95	80	40	13.0	26.9	7	17	11	42	34	98
Oglethorpe Barracks	59.60	69.93	78.10	66.50	68.53	93	38	24.4	30.5	17	19	9	9	34	35
Fort Marion	62.33	74.56	73.06	68.10	69.51	82	56	12.4	13.5	18	76	16	50	55	126
Key West	70.37	77.43	78.83	73.37	75.00	83	58	8.0	7.0	3	8	8	22	75	179
Fort Brooke	62.60	70.26	79.50	70.46	70.70	85	48	14.3	22.7	0	0	21	39	15	15
Camp Barrancas	65.06	70.06	74.90	68.46	69.62	82	48	12.3	21.6	6	12	4	14	10	34
Fort Pike	68.00	71.90	78.60	69.96	72.11	87	44	14.8	28.1	0	0	4	8	35	85
Fort Wood	65.54	74.18	77.38	71.40	72.12	86	46	13.8	26.1	5	5	0	0	34	40
New Orleans	63.96	77.46	79.30	69.36	72.52	85	45	12.4	27.5	1	1	0	0	52	101
Baton Rouge	63.36	74.60	80.00	69.70	71.91	88	40	16.0	31.9	2	3	3	4	43	45
Fort Jesup	64.73	67.10	77.40	73.40	70.66	86	34	15.3	36.6	0	0	4	6	2	2
Fort Towson	62.53	67.70	76.10	67.10	68.36	85	43	16.6	25.3	6	8	13	23	49	72
Fort Washita	63.17	68.13	73.80	68.00	68.27	84	46	15.7	22.2	5	6	0	0	5	8
Fort Smith	58.56	69.10	76.33	62.33	66.58	90	39	23.4	27.5	2	5	7	19	13	20
Fort Gibson	61.95	64.91	72.38	65.98	66.30	83	47	16.7	19.3	0	0	0	0	10	17
Fort Scott	54.27	63.60	72.73	62.50	63.27	80	38	16.7	25.2	6	8	7	7	12	13
Jefferson Barracks	59.63	63.60	69.80	58.60	62.91	78	39	15.0	23.9	13	24	6	8	10	11
St. Louis Arsenal	54.10	63.53	76.43	65.28	64.83	80	40	15.1	24.8	1	1	9	18	20	24
Detroit Barracks	42.86	56.40	65.33	53.70	54.57	84	18	29.4	36.5	3	4	35	74	21	38
Fort Gratiot	45.63	54.53	63.23	50.23	53.40	82	31	28.6	22.4	10	26	38	92	1	2
Fort Mackinac	37.76	44.16	46.60	41.16	42.42	69	26	26.5	16.4	11	13	12	19	21	84
Fort Brady	34.16	43.83	51.46	41.23	42.67	78	22	35.3	20.6	2	2	3	6	26	4

MONTH OF APRIL, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9. P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	15	23	83	29	99	21	63	11	43	5.83	5.96	6.20	5.40	5.84	19	11	2	1	1.57	
19	26	0	0	45	96	45	66	11	20	7.06	6.96	6.93	6.80	6.46	20	10	2	0	0.70	
28	63	22	46	35	79	1	4	14	54	5.00	4.00	5.00	5.00	4.75	18	12	5	0	0.34	
9	14	32	63	5	9	13	25	24	49	4.90	5.16	4.56	4.56	4.79	16	14	2	0	0.35	
9	17	3	6	77	94	13	31	16	41	7.28	7.66	7.05	8.75	7.68	17	13	5	0	0.38	
2	3	11	17	34	62	13	17	1	2	4.76	4.86	5.16	4.80	4.89	14	16	5	0	1.49	
20	56	14	26	19	56	8	19	22	55	4.26	5.26	5.33	5.06	4.97	15	15	4	0	1.19	
18	21	6	10	23	24	7	8	24	30	4.53	6.20	5.90	3.00	4.90	18	12	9	0	0.55	
15	22	14	22	30	59	10	31	5	7	4.23	4.66	5.43	6.00	5.08	15	15	4	0	0.52	
30	32	26	26	6	7	6	6	33	35	5.66	4.90	4.86	5.50	5.23	14	16	7	0	0.50	
6	15	53	170	8	14	21	50	15	37	4.80	5.10	4.63	4.53	4.76	14	16	3	0	....	
26	39	9	16	38	97	0	0	3	10	5.50	7.00	7.36	4.43	6.07	21	9	7	0	2.61	
29	87	14	56	25	95	4	14	16	64	5.83	5.86	5.90	5.63	5.80	18	12	11	0	1.79	
45	108	15	27	10	21	6	12	18	34	4.90	5.60	5.30	5.40	5.30	18	12	6	0	1.40	
7	20	19	29	18	54	14	38	10	29	5.43	5.16	6.36	6.30	5.81	20	10	7	0	0.84	
7	18	7	26	61	185	5	13	8	22	5.13	5.01	5.27	5.27	5.17	20	10	7	0	1.55	
10	10	4	4	12	26	31	56	16	20	4.80	6.63	6.23	6.66	6.08	20	10	8	0	1.79	Temp. in excess.
15	15	11	11	3	5	40	45	6	8	4.70	4.93	5.53	6.26	5.35	14	16	7	0	4.28	Therm. protected.
11	18	3	11	37	58	4	6	13	91	5.86	5.10	6.73	5.96	5.91	17	13	8	0	2.15	
14	24	25	28	4	5	10	18	6	14	3.29	4.80	6.70	5.21	5.00	14	16	5	0	1.60	
30	75	18	49	6	13	9	13	16	42	4.06	4.60	5.50	5.70	4.96	15	15	7	0	1.08	
22	36	7	9	15	31	14	18	7	9	3.40	4.03	5.73	5.83	4.74	13	17	4	0	1.41	
10	22	9	20	38	75	8	12	0	0	7.53	8.57	8.66	8.33	8.27	27	3	3	0	1.30	Therm. protected.
3	9	7	18	37	109	4	38	2	4	4.27	6.80	7.90	6.23	6.30	25	5	3	0	0.70	Defective.
16	26	19	19	30	53	16	32	19	24	7.03	7.73	7.06	7.53	7.33	25	5	3	0	....	
8	16	20	62	20	68	17	38	3	7	6.10	6.73	7.20	8.46	7.12	23	7	4	0	1.20	
7	8	21	23	13	15	17	19	2	2	5.40	5.13	6.00	8.60	6.28	20	10	3	0	3.07	
18	40	3	6	5	7	5	11	1	3	4.33	7.66	7.00	7.13	6.53	21	9	5	0	1.26	
21	37	1	1	1	2	0	0	0	0	6.96	6.90	6.96	8.96	7.44	26	4	2	0	0.05	
21	22	20	20	38	38	5	9	0	0	5.26	7.73	8.16	5.90	6.76	26	4	1	0	0.10	
56	182	5	20	29	111	5	14	5	12	3.40	4.66	6.03	7.13	5.30	19	11	5	0	1.98	
42	108	12	30	17	44	7	14	3	6	7.00	6.50	6.60	7.23	6.84	25	5	3	0	0.86	
2	4	63	70	4	4	12	12	0	0	5.73	5.63	5.60	6.70	5.91	21	9	3	0	0.39	
22	30	22	24	0	0	3	4	2	2	4.46	4.86	5.23	6.80	5.34	17	13	3	0	0.53	
31	36	14	18	19	21	4	6	4	6	2.80	4.20	4.96	7.50	4.86	13	17	3	0	0.50	
21	40	77	97	16	20	0	0	0	0	4.36	5.27	6.13	5.60	5.34	15	15	8	0	6.60	
37	68	6	10	5	6	1	1	3	5	2.53	1.80	3.50	5.90	3.43	8	22	12	0	10.38	
3	6	89	193	14	35	3	6	1	2	2.03	2.30	3.44	4.73	3.11	7	23	10	0	5.05	
11	34	21	48	6	14	1	3	4	8	2.93	2.83	3.53	4.46	3.44	10	20	16	0	14.28	
108	267	1	2	1	4	0	0	0	0	3.40	1.71	3.50	4.60	3.30	8	22	11	0	9.62	
22	23	49	101	15	25	2	2	7	9	3.63	4.40	5.10	5.93	4.76	14	16	14	0	6.91	
41	93	33	72	11	24	4	9	2	2	4.53	4.66	4.60	5.19	4.74	17	13	11	0	3.13	
26	37	18	22	15	21	26	37	5	2	6.50	7.13	7.10	5.26	6.49	23	7	8	0	5.59	
10	20	25	56	24	58	2	3	0	0	3.86	3.86	4.70	5.93	4.58	16	14	9	0	3.35	
17	28	20	41	28	50	1	2	5	11	3.06	4.53	5.03	4.26	4.22	13	17	8	0	0.99	
20	61	5	5	17	38	17	50	17	33	3.40	4.76	5.36	3.36	3.95	13	17	9	0	....	
37	85	0	0	9	22	17	33	24	54	4.53	4.90	4.80	5.50	4.90	16	14	7	0	3.07	

MONTH OF APRIL, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Winnebago.......	47.26	55.36	63.80	54.26	55.17	80	32	24.8	23.1	11	32	13	39	7	23
Fort Crawford.........	50.38	62.20	60.23	56.14	57.24	84	36	26.7	21.2	9	19	13	18	8	19
Fort Atkinson	47.93	56.83	62.86	54.46	55.39	80	32	24.6	23.3	16	32	3	5	16	36
Fort Snelling..........	44.96	51.03	58.63	51.20	51.45	80	30	28.5	21.4	4	11	17	49	8	27
Fort Des Moines.......	50.96	61.06	68.70	56.23	59.24	85	35	25.7	24.2	10	18	10	16	15	27
Fort Leavenworth	58.80	61.93	70.19	62.93	63.46	85	42	21.5	21.4	8	8	6	11	4	4

MONTH OF APRIL, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	24	25	74	7	29	12	45	6	19	4.33	5.36	4.96	4.90	4.89	16	14	11	0	3.52	
30	60	28	63	16	33	5	15	11	15	4.25	5.60	3.20	5.60	4.66	14	16	11	0	3.56	Morning temp. in excess.
38	105	24	73	11	27	6	19	6	9	4.00	3.80	3.63	4.76	4.04	12	18	9	0	....	
24	66	26	70	25	72	1	3	15	36	2.66	3.30	3.26	5.40	3.63	11	19	15	0	5.16	
5	14	18	47	47	152	14	36	1	1	3.10	4.00	3.96	5.30	4.09	11	19	3	0	....	
27	118	22	74	29	101	2	13	12	22	3.19	3.16	4.15	5.00	3.87	13	17	5	0	3.20	

MONTH OF MAY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	37.81	....	56.74	45.97	46.84	72	23	25.1	23.8	8	..	2	..	1	..
Hancock Barracks	41.29	49.74	56.19	48.38	48.90	69	32	20.1	16.9	15	48	3	13	17	54
Fort Sullivan	42.80	50.00	61.45	47.09	50.33	78	35	27.6	15.3	0	0	0	0	0	0
Fort Preble	46.00	53.00	56.00	50.00	51.25	75	38	23.7	13.2	5	14	10	34	2	6
Fort Constitution	48.48	55.29	58.09	51.70	53.39	76	40	22.6	13.3	1	2	17	37	10	19
Watertown Arsenal	49.19	59.54	66.38	54.83	57.48	80	34	22.5	23.4	2	4	10	27	8	20
Fort Adams	52.29	61.35	62.80	54.80	57.56	74	44	16.4	13.5	7	25	18	50	14	20
Fort Trumbull	49.03	58.38	65.70	54.83	56.99	81	34	24.0	22.9	5	16	2	6	2	6
Fort Columbus	57.00	63.68	71.00	61.48	63.29	86	40	22.7	23.2	12	17	17	18	3	0
Fort Hamilton	56.87	60.29	67.28	61.55	61.50	79	42	17.5	19.5	10	26	11	21	6	12
West Point	57.77	59.83	68.83	60.35	61.69	86	42	24.3	19.6	3	4	2	2	0	0
Watervliet Arsenal	54.47	61.80	68.37	58.23	60.72	87	34	26.2	26.7	0	0	0	0	0	0
Plattsburg Barracks	49.45	54.48	62.90	53.32	55.04	80	33	24.9	22.0	0	0	18	45	6	7
Madison Barracks	51.54	57.16	60.00	55.32	56.00	74	35	18.0	21.0	2	7	8	26	2	7
Fort Ontario	58.60	64.20	68.20	59.30	62.57	80	48	17.4	14.5	2	7	19	35	3	4
Fort Niagara	50.90	60.19	63.64	54.22	57.24	82	36	24.7	21.2	2	11	14	51	4	7
Buffalo Barracks	49.80	58.87	62.58	54.67	56.48	82	36	25.5	20.4	8	22	4	11	3	7
Alleghany Arsenal	54.96	61.35	72.70	61.06	62.52	86	36	23.4	26.5	11	16	4	6	4	7
Carlisle Barracks	60.70	64.80	72.12	65.90	65.88	84	48	18.1	17.8	4	6	0	0	12	12
Fort Mifflin	57.80	68.74	74.48	62.13	65.79	89	52	23.2	13.7	1	3	10	19	1	3
Fort McHenry	61.60	64.11	73.90	66.22	66.46	83	52	16.5	14.4	11	25	4	7	2	7
Fort Severn	63.45	70.06	74.93	67.54	68.99	89	49	20.0	19.9	10	28	4	11	5	12
Fort Monroe	65.09	73.74	80.09	70.06	72.24	91	51	18.7	21.2	1	1	6	19	16	42
Fort Macon	69.75	71.83	72.50	72.30	71.60	80	61	8.4	10.6	2	6	8	38	14	58
Fort Johnston	70.00	77.14	81.26	79.22	76.90	89	56	12.1	20.9	1	3	17	56	14	37
Augusta Arsenal	69.53	77.35	84.80	77.74	77.43	92	58	14.5	19.4	3	3	6	13	13	21
Fort Moultrie	73.90	76.06	77.54	76.41	75.98	81	62	5.0	13.9	2	5	11	42	21	72
Oglethorpe Barracks	72.22	80.90	86.32	76.26	78.92	96	66	19.7	12.9	4	3	11	15	19	20
Fort Marion	70.41	81.19	80.25	76.74	74.15	87	66	12.8	8.1	1	4	8	17	26	68
Key West	76.03	81.90	81.90	75.90	78.93	84	74	5.0	4.9	0	0	1	2	96	263
Fort Brooke	70.19	76.76	84.87	79.67	77.87	90	66	12.1	11.8	0	0	14	19	12	19
Camp Barrancas	74.58	79.80	82.93	76.45	78.44	86	70	7.5	8.4	0	0	6	14	1	3
Mount Vernon Arsenal.	69.00	80.00	87.19	73.84	77.51	94	66	16.4	11.5	0	0	12	36	1	2
Fort Pike	75.29	83.80	87.65	77.65	81.10	93	69	11.9	12.1	9	15	4	7	12	28
Fort Wood	73.50	83.50	85.21	77.46	79.92	90	66	10.0	13.9	11	11	0	0	19	23
New Orleans	71.32	81.56	84.74	76.22	78.46	89	67	10.5	11.4	5	5	0	0	22	41
Baton Rouge	68.77	79.74	85.09	74.80	77.10	91	64	13.9	13.1	1	1	17	18	35	34
Fort Jesup	69.64	76.09	84.38	76.19	76.57	92	58	15.4	18.5	1	1	5	8	5	8
Fort Towson	65.41	71.12	81.58	72.00	72.53	86	50	13.4	22.5	11	16	12	18	27	36
Fort Washita	65.71	72.90	80.06	74.97	73.41	89	54	15.5	19.4	3	6	0	0	7	12
Fort Smith	60.93	73.83	83.43	66.41	71.15	92	50	20.8	21.1	0	0	9	17	7	17
Fort Gibson	64.14	69.60	76.93	68.88	69.89	83	52	13.1	17.8	0	0	0	0	6	16
Fort Scott	56.74	66.77	72.61	63.32	64.36	84	46	19.6	18.3	5	6	15	15	13	15
Jefferson Barracks	61.77	64.64	69.77	64.61	65.20	82	46	16.8	19.2	3	5	13	22	8	9
St. Louis Arsenal	56.61	67.09	76.09	65.32	66.28	94	46	27.7	20.2	14	19	11	10	25	39
Detroit Barracks	50.45	61.38	65.96	56.19	58.49	80	30	21.5	28.4	13	26	12	29	3	10
Fort Gratiot	50.61	61.16	65.00	55.96	58.18	86	32	27.8	26.1	3	8	29	63	3	3

MONTH OF MAY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	..	14	..	9	..	9	..	9	..	....	....	....	....	....	12	19	14	0	....	Incomplete.
18	63	26	97	17	65	16	67	12	54	3.25	3.00	4.16	3.19	3.40	9	22	19	0	2.87	
16	43	12	19	57	142	18	35	14	31	4.13	4.96	5.19	4.70	5.39	15	16	10	0	3.65	
30	79	28	83	34	86	1	3	14	59	3.40	3.40	3.20	4.10	3.52	11	20	14	0	3.74	
7	10	37	60	17	41	12	38	23	83	3.70	4.30	3.80	3.40	3.80	14	17	9	0	2.75	
14	25	9	26	37	113	20	58	23	69	7.27	8.05	6.36	6.60	7.07	15	16	16	0	3.67	
6	12	14	23	54	141	5	16	6	20	4.16	4.51	4.22	4.29	4.30	10	21	13	0	5.21	
22	56	15	31	45	126	12	25	21	55	4.32	4.58	4.93	3.77	4.40	16	15	14	0	3.47	
26	39	7	13	26	38	14	25	19	29	6.39	6.00	6.61	3.93	5.73	17	14	15	0	3.41	
5	9	13	14	34	67	33	96	12	39	5.32	5.64	5.54	6.68	5.29	18	13	10	0	2.80	
30	42	29	38	6	6	14	26	40	51	5.38	4.54	4.64	4.68	4.81	16	15	15	0	5.10	
13	26	58	191	28	54	25	69	10	35	4.26	5.20	5.33	4.50	4.82	16	15	5	0	....	
32	55	19	32	41	121	4	14	4	2	3.61	4.61	6.64	4.87	4.94	17	14	13	0	5.40	
18	72	12	47	52	216	7	21	23	113	2.90	3.70	4.12	5.45	4.06	12	19	17	0	3.37	
17	41	8	20	36	73	15	39	24	79	2.50	3.50	4.90	3.90	3.70	9	22	11	0	3.74	
6	16	34	12	25	103	25	82	14	54	3.16	3.58	4.54	4.03	3.82	12	19	15	0	2.74	
4	12	6	24	74	252	17	68	8	28	2.93	4.16	4.93	4.70	4.18	14	17	18	0	5.05	
3	4	14	17	27	61	42	94	19	49	2.67	3.93	3.93	4.96	3.86	10	21	16	0	4.89	
4	4	15	18	7	9	67	97	15	22	5.38	5.58	5.64	5.80	5.60	17	14	10	0	6.40	Therm. protected.
23	60	8	17	50	117	8	19	23	42	4.90	6.03	6.48	5.26	5.71	16	15	9	0	3.82	
8	12	17	36	24	61	45	94	13	43	5.10	5.15	7.10	6.19	5.88	20	11	13	0	4.00	
14	33	38	122	28	98	14	48	11	34	4.63	5.00	5.51	5.70	5.21	17	14	14	0	4.69	
32	48	4	7	39	123	23	59	12	37	3.93	4.41	4.41	5.77	4.63	13	18	10	0	2.92	
4	12	12	36	72	294	8	35	0	0	7.40	7.90	7.35	7.58	7.57	24	7	5	0	2.43	Inaccurate. Therm. protected.
0	0	21	56	66	330	4	16	1	1	3.30	4.26	8.29	4.22	4.29	20	11	6	0	1.57	
29	50	13	21	43	71	15	33	2	6	5.96	6.67	5.35	7.12	6.27	22	9	6	0	0.57	
8	26	34	133	34	137	12	24	2	6	5.22	5.22	6.19	6.80	5.85	22	9	6	0	1.87	
6	7	63	101	12	12	9	10	0	0	6.25	4.58	4.87	7.38	5.74	21	10	4	0	2.47	
42	123	36	100	10	13	1	2	0	0	5.67	7.35	6.80	7.12	6.73	25	6	6	0	2.97	
16	31	10	18	0	0	0	0	0	0	6.42	6.22	7.19	7.67	6.87	25	6	9	0	1.36	
1	1	47	50	42	45	4	4	4	5	6.03	7.64	6.35	4.32	6.08	23	8	5	0	5.50	
20	69	7	22	74	278	11	27	5	10	4.51	5.03	5.38	5.16	5.02	13	18	13	0	5.52	
59	148	12	34	17	47	12	24	8	22	5.90	5.48	4.48	6.00	5.47	20	11	8	0	5.92	
20	56	15	56	45	134	10	23	9	24	5.87	6.10	6.97	7.06	6.50	26	5	6	0	9.52	
0	0	63	70	9	9	21	21	1	1	4.93	4.90	5.22	6.64	5.42	24	7	6	0	5.31	
17	32	32	55	6	7	3	9	0	0	5.64	4.48	4.54	7.77	5.61	20	11	7	0	3.16	
37	41	17	21	13	15	4	3	0	0	6.22	5.64	6.25	8.25	6.59	25	6	5	0	3.30	
16	23	54	90	42	75	0	0	1	1	4.38	5.38	5.48	4.64	4.97	17	14	5	0	3.05	
43	72	19	52	1	2	4	5	7	13	4.22	3.25	5.39	8.71	4.64	17	14	8	0	3.25	
19	33	70	134	3	6	15	22	7	13	3.13	3.35	4.38	5.58	4.36	11	20	10	0	4.59	
7	13	16	33	13	32	6	11	8	21	3.70	3.96	4.67	6.00	4.58	14	17	13	0	3.12	
117	197	1	0	0	0	0	0	0	0	3.61	4.19	8.96	4.51	4.56	18	13	10	0	8.46	
7	10	42	70	23	37	7	9	12	16	3.80	4.84	5.22	4.28	4.53	13	18	20	0	14.79	
32	63	18	29	20	38	19	39	11	26	4.46	4.77	5.19	6.16	5.14	15	16	15	0	7.27	Therm. protected.
26	38	17	17	15	29	14	23	2	3	5.45	6.12	7.19	5.48	6.06	22	9	16	0	11.03	
5	10	21	62	35	100	23	52	11	28	4.54	4.25	3.00	4.48	4.06	12	19	17	0	5.68	
12	18	14	34	45	98	13	32	5	9	2.03	4.00	4.19	2.58	3.27	8	23	13	0	5.05	

MONTH OF MAY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Mackinac	44.58	51.54	51.87	47.22	48.80	66	31	17.2	17.8	18	34	10	12	2	10
Fort Brady	41.03	50.64	54.00	46.13	47.95	69	26	21.0	21.9	5	14	4	4	13	14
Fort Crawford	53.28	63.90	66.30	59.23	60.68	83	45	22.3	15.6	16	24	11	14	2	3
Fort Atkinson	49.64	58.35	66.16	55.12	57.32	82	32	24.6	25.3	17	28	10	21	10	17
Fort Snelling	47.80	57.61	63.96	50.96	55.08	76	32	20.9	23.0	16	41	30	53	12	21
Fort Des Moines	50.87	61.35	67.58	57.54	59.33	87	35	27.6	24.3	18	35	7	11	11	22
Fort Leavenworth	55.41	61.16	69.33	62.25	62.04	84	44	21.9	18.0	13	20	25	41	3	6

MONTH OF MAY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
21	43	2	5	16	47	19	74	36	73	2.93	5.25	5.06	2.80	4.01	14	17	7	1	....	Therm. protected.
24	50	7	9	7	21	24	45	40	117	2.87	4.09	3.70	3.45	3.52	8	23	19	0	2.87	
18	23	11	25	24	58	12	23	30	48	4.26	4.13	4.12	5.25	4.69	15	16	12	0	4.71	
12	34	18	67	27	65	11	26	19	52	4.70	3.90	3.61	6.35	4.63	14	17	10	0	5.55	
9	18	7	31	14	52	12	46	24	60	3.77	3.48	3.19	5.51	3.98	11	20	11	0	4.50	
5	8	15	36	17	58	28	73	23	46	3.74	4.22	3.58	4.38	2.98	13	18	12	0	....	
26	68	9	23	23	63	8	14	17	43	3.19	3.64	3.77	4.32	3.70	11	20	16	0	8.53	

MONTH OF JUNE, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	48.30	61.76	69.46	57.26	59.19	90	33	30.8	26.1	17	31	8	9	2	2
Hancock Barracks	51.40	62.73	67.90	59.35	60.37	86	39	25.6	21.3	16	51	5	10	6	16
Fort Sullivan	50.76	57.96	66.13	57.20	58.01	82	42	23.9	16.0	2	5	6	8	5	11
Fort Preble	54.00	64.00	67.00	58.00	60.75	83	44	22.2	16.7	5	12	8	21	3	4
Fort Constitution	55.90	64.10	68.30	59.36	61.91	87	45	25.0	16.9	3	5	17	43	3	2
Watertown Arsenal	50.67	69.16	74.53	61.26	63.90	92	42	28.1	21.9	1	1	8	19	9	18
Fort Adams	60.80	71.33	72.80	62.26	66.80	84	51	17.2	15.8	13	29	9	29	4	7
Fort Trumbull	56.03	65.66	73.23	60.90	63.95	90	48	26.0	15.9	10	22	5	12	1	4
Fort Columbus	62.70	69.27	78.70	66.20	69.22	92	54	22.7	15.2	5	10	15	20	7	10
Fort Hamilton	61.60	66.76	71.93	67.20	66.87	84	50	17.1	16.8	10	30	9	15	12	22
West Point	63.26	68.10	73.30	65.03	67.42	85	54	17.5	13.4	5	4	5	2	0	0
Watervliet Arsenal	58.77	66.33	73.90	61.53	65.13	89	48	23.8	16.1	1	3	2	5	0	0
Plattsburg Barracks	54.83	61.50	69.53	58.20	61.01	87	40	25.9	21.0	2	3	23	43	3	5
Madison Barracks	55.90	63.63	67.95	61.06	62.13	86	40	23.8	22.1	2	7	6	18	0	0
Fort Ontario	55.80	62.40	68.60	60.10	61.72	85	41	23.2	20.7	2	5	15	23	7	9
Fort Niagara	56.03	64.13	66.76	59.73	61.66	80	45	18.3	16.6	19	46	16	46	2	4
Buffalo Barracks	57.20	68.30	73.76	62.20	65.36	83	40	17.6	25.3	11	32	11	29	1	3
Alleghany Arsenal	60.53	68.50	77.10	66.56	68.17	90	46	21.8	22.1	19	24	16	15	5	6
Carlisle Barracks	65.66	69.16	75.13	70.40	70.09	88	56	17.9	14.0	7	6	6	9	14	14
Fort Mifflin	62.16	73.33	78.00	66.43	69.98	90	50	20.0	19.9	4	4	23	50	0	0
Fort McHenry	63.28	69.28	75.70	69.10	69.34	87	50	17.6	19.3	11	23	14	39	5	8
Fort Severn	67.43	72.50	76.70	71.53	72.04	92	55	19.9	17.0	13	42	4	9	3	6
Fort Monroe	68.56	75.26	82.93	72.88	74.91	95	60	20.0	14.9	1	1	6	21	27	81
Fort Macon	72.60	74.30	75.70	73.90	74.12	82	64	7.8	10.1	0	0	22	72	14	39
Fort Johnston	73.60	80.00	81.26	75.23	77.77	93	62	15.2	15.7	1	2	17	61	27	63
Augusta Arsenal	68.63	77.93	84.26	77.36	77.04	92	58	14.9	19.0	6	13	5	11	17	34
Fort Moultrie	77.83	81.15	81.51	78.93	79.85	87	73	7.1	6.8	3	10	19	69	22	60
Oglethorpe Barracks	73.56	83.20	84.70	78.10	79.89	92	64	12.1	15.8	17	19	6	9	38	47
Fort Marion	73.27	80.87	79.83	76.90	77.72	82	70	4.2	7.7	1	4	6	15	50	101
Key West	78.13	83.20	84.90	79.13	81.34	88	75	6.6	6.3	0	0	3	6	57	114
Fort Brooke	72.76	76.80	80.43	76.56	76.66	88	70	11.3	6.6	0	0	22	16	18	20
Camp Barrancas	75.93	83.33	84.73	79.73	80.43	88	70	7.5	10.4	10	22	15	36	8	21
Mt. Vernon Arsenal	70.43	82.26	86.36	74.63	78.42	92	64	13.5	14.4	0	0	19	39	0	0
Fort Pike	73.63	85.13	87.20	79.93	81.47	93	70	11.5	11.4	4	5	8	17	14	35
Fort Wood	75.18	85.58	86.20	79.40	81.59	91	68	9.4	13.5	18	21	0	0	25	27
New Orleans	75.20	82.05	84.56	78.38	79.80	89	69	9.2	10.8	0	0	4	5	18	24
Baton Rouge	71.76	81.86	85.86	75.53	78.75	91	62	12.2	16.7	9	14	9	18	46	48
Fort Jesup	72.00	79.43	87.56	77.73	79.18	96	59	16.8	20.1	2	3	4	6	0	0
Fort Towson	69.46	77.56	87.33	77.30	77.91	94	60	16.0	17.9	7	9	12	12	27	32
Fort Washita	71.70	76.20	88.57	72.07	77.13	94	65	16.8	22.1	4	5	1	2	1	2
Fort Smith	67.03	79.60	88.46	71.76	76.71	97	59	20.2	17.7	0	0	4	14	5	8
Fort Gibson	70.38	75.23	82.18	75.30	75.77	88	62	12.2	13.7	0	0	0	0	4	3
Fort Scott	63.30	73.80	80.03	71.16	72.07	90	56	17.9	16.0	5	8	22	38	11	16
Jefferson Barracks	68.56	69.56	74.70	70.66	70.87	82	62	11.1	8.8	0	0	6	6	4	7
St. Louis Arsenal	66.26	73.80	84.16	76.93	75.29	95	52	19.7	23.2	7	7	22	28	24	30
Detroit Barracks	57.33	65.83	70.60	62.16	63.98	83	36	19.0	27.9	10	21	27	57	4	8
Fort Gratiot	53.20	63.40	68.10	59.20	60.97	84	33	23.0	27.9	6	20	48	123	3	4

MONTH OF JUNE, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
9	10	18	24	5	7	35	55	20	32	4.76	5.70	4.46	4.73	4.66	15	16	13	0	....	
8	32	24	73	24	83	22	67	15	49	3.70	4.63	3.66	3.36	3.88	8	22	8	0	2.73	
13	35	13	34	40	93	20	51	21	57	5.73	5.90	5.90	6.36	5.97	18	12	3	0	0.82	
14	30	31	92	42	108	6	17	11	44	3.90	4.40	4.40	4.50	4.30	12	18	7	0	3.34	
7	13	33	75	18	39	18	15	21	70	4.56	5.20	5.10	5.66	5.13	17	13	6	0	1.45	
12	24	7	15	45	127	21	49	16	48	7.52	6.50	5.65	7.60	6.82	15	15	8	0	1.69	
0	0	9	18	65	163	12	27	8	25	4.60	5.46	4.66	5.53	5.06	15	15	3	0	1.77	
6	17	15	32	42	120	23	60	18	56	5.76	5.53	5.16	5.36	5.45	18	12	6	0	1.94	
30	47	5	8	28	50	16	28	14	21	7.00	7.83	7.80	6.47	7.27	27	3	7	0	2.37	
5	7	12	19	37	50	27	73	8	33	6.53	6.36	6.53	6.93	6.58	23	7	5	0	2.32	
26	27	28	28	10	10	4	5	42	51	5.63	6.00	4.50	6.06	5.54	18	12	10	0	3.45	
0	0	61	177	23	47	26	81	7	30	6.53	6.73	5.86	5.33	6.11	21	9	2	0	....	
29	66	17	42	40	119	3	11	3	7	4.46	6.03	6.43	4.53	5.36	19	11	12	0	4.41	
23	68	18	64	44	178	5	17	22	99	4.33	4.53	4.56	3.83	4.31	12	18	10	0	3.74	
4	7	27	55	15	29	16	37	34	59	2.40	4.40	4.80	3.90	3.87	12	18	7	0	8.20	
3	12	17	53	33	138	13	40	15	57	3.33	3.86	4.46	4.16	3.05	12	18	8	0	2.59	
6	15	3	6	61	196	14	48	13	39	3.80	4.36	5.56	5.00	4.68	14	16	12	0	3.50	
2	1	16	36	10	30	28	47	24	28	3.10	4.96	4.66	5.60	4.58	13	17	8	0	4.02	
6	6	16	16	13	20	38	40	20	25	5.66	6.00	5.46	6.70	5.95	21	9	8	0	8.49	
22	61	12	28	37	84	1	2	21	37	5.26	6.20	5.90	6.46	5.98	18	12	9	0	4.90	
11	28	19	41	17	36	36	66	7	19	5.10	6.13	6.15	5.20	5.64	20	10	6	0	1.70	
21	70	27	101	25	61	13	31	14	41	5.33	5.86	5.70	6.00	5.72	20	10	8	0	3.91	
25	75	8	17	23	54	24	52	6	12	3.56	4.96	5.73	6.53	5.19	16	14	7	0	4.85	
3	9	8	28	42	117	23	80	0	0	7.50	7.73	7.53	6.50	7.32	16	14	7	0	3.05	Temp. in error.
8	18	17	49	43	157	7	17	0	0	4.32	5.17	6.12	4.25	4.96	19	11	9	0	3.28	Inaccurate.
19	30	17	23	33	40	16	29	7	11	5.46	5.86	4.33	5.43	5.27	18	12	7	0	1.41	
15	52	34	192	18	54	8	18	1	1	5.50	5.93	5.86	6.20	5.87	20	10	7	0	1.51	
16	17	19	22	4	4	16	16	4	4	5.63	4.90	3.96	6.40	5.22	17	13	13	0	8.19	
29	70	7	10	9	13	19	21	4	4	5.60	6.01	4.90	4.97	5.39	16	14	13	0	2.18	
16	23	23	32	6	9	4	5	1	1	4.96	4.80	6.16	6.00	5.48	21	9	11	0	7.13	
15	18	22	24	32	36	10	17	1	1	6.40	7.80	5.86	4.46	6.38	25	5	11	0	4.70	
24	87	5	17	45	153	4	11	9	22	4.16	4.16	4.20	5.06	4.39	8	22	14	0	5.11	
37	72	5	7	36	82	1	3	22	37	7.30	5.76	4.16	5.63	5.71	21	9	14	0	9.38	
24	59	1	3	47	96	4	10	18	39	6.90	6.46	4.93	7.03	6.33	25	5	9	0	1.18	
1	1	40	44	0	0	40	41	1	1	5.90	5.00	3.36	5.73	4.99	16	14	7	0	1.89	
13	20	12	19	2	4	8	10	1	1	5.96	4.36	2.50	6.13	4.74	15	15	10	0	2.75	
14	23	10	12	7	8	6	6	9	9	7.93	7.56	6.66	6.70	7.21	27	3	11	0	3.50	
28	44	73	113	10	16	1	1	2	3	5.96	5.16	6.10	5.76	5.74	19	11	11	0	5.11	
36	53	18	30	10	16	2	3	8	11	4.93	4.60	5.30	7.73	5.64	19	11	9	0	2.66	
10	22	84	131	9	15	9	19	2	3	5.47	5.83	6.40	8.53	6.55	20	10	6	0	4.43	
9	16	10	20	12	24	4	11	3	7	3.80	4.53	5.36	7.23	5.23	16	14	8	0	1.10	
116	172	0	0	0	0	0	0	0	0	5.46	5.13	6.10	6.96	5.91	18	12	9	0	3.15	Winds inaccurate.
6	11	55	146	7	12	7	10	7	10	3.46	3.90	3.90	5.00	4.06	12	18	17	0	12.64	
28	14	17	25	32	45	24	34	9	22	3.58	4.63	4.66	5.76	4.65	13	17	11	0	5.40	Therm. protected.
18	17	19	20	15	14	10	25	5	5	6.80	8.40	8.50	5.96	7.41	26	4	12	0	7.54	
8	23	18	47	27	68	17	38	9	16	3.50	3.60	3.60	4.80	3.87	11	19	13	0	5.18	
23	49	21	60	14	37	3	9	2	6	3.30	3.70	3.63	4.70	3.83	10	20	10	0	3.95	

MONTH OF JUNE, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Mackinac	52.53	58.60	59.36	53.93	54.10	70	42	15.9	12.1	11	19	22	37	7	19
Fort Brady	40.30	56.10	63.46	53.71	53.39	73	32	19.6	21.3	7	7	4	4	14	19
Fort Wilkins	50.80	58.04	65.92	52.35	56.78	85	38	28.2	18.7	2	3	3	3	7	11
Fort Winnebago	54.00	65.30	71.80	61.76	63.21	80	37	16.7	26.2	13	28	7	13	10	17
Fort Crawford	58.70	69.20	72.40	64.19	66.12	82	41	15.8	25.1	9	11	11	18	10	16
Fort Atkinson	57.30	66.70	71.90	60.50	64.10	84	44	19.9	20.1	13	25	6	16	16	40
Fort Snelling	54.40	63.86	70.60	61.70	62.64	83	41	20.3	21.6	29	57	24	51	10	16
Fort Des Moines	57.50	66.43	73.70	61.90	64.88	90	42	25.1	22.8	15	11	10	10	29	37
Fort Leavenworth	64.13	68.50	72.83	69.53	68.75	88	54	19.2	14.7	7	14	38	82	7	13

MONTH OF JUNE, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	32	6	14	6	11	25	63	32	81	4.13	5.76	5.76	2.96	4,65	15	15	5	0	....	
27	49	10	10	10	25	26	36	22	73	3.90	4.60	5.30	5.70	4.87	16	14	13	0	4.26	
10	21	18	54	13	30	15	43	51	153	4.03	4.46	4.40	3.56	4,11	11	19	7	0	....	
1	4	9	28	10	39	10	29	11	30	3.93	4.43	3.96	4.43	4.19	15	15	13	0	4.07	
25	32	4	6	18	23	9	13	36	44	3.13	3.10	3.24	4.24	3,42	11	19	11	0	4.01	
21	38	7	18	19	107	17	33	21	45	3.80	2.50	3.30	6.03	3,90	12	18	10	0	5.88	
14	26	6	11	10	26	11	24	16	43	3.83	4.13	3.90	7.03	4.73	14	16	10	0	1.64	
10	16	6	11	6	8	29	25	15	18	4.56	3.43	3.96	3.76	3,92	11	19	17	0	7.66	
13	31	13	56	20	56	1	1	21	43	3.03	2.56	4.03	3.43	3.26	9	21	14	0	12.00	

MONTH OF JULY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	49.48	62.12	68.58	56.16	59.08	78	40	18.9	19.1	11	26	8	10	12	16
Hancock Barracks	52.22	62.54	68.51	59.38	60.66	79	43	18.3	17.7	11	27	10	24	10	19
Fort Sullivan	52.61	61.61	65.91	56.64	59.19	82	42	22.8	17.2	11	22	8	20	3	7
Fort Preble	57.00	66.00	69.00	60.00	63.00	84	46	24.0	17.0	2	7	11	26	2	5
Fort Constitution	58.19	66.09	71.03	62.93	64.56	87	49	22.4	15.6	4	7	13	23	4	4
Watertown Arsenal	59.35	67.87	78.29	66.16	67.92	88	42	19.1	25.9	7	12	13	27	14	30
Fort Adams	66.19	74.41	76.21	67.19	71.00	88	60	17.0	11.0	21	43	13	30	6	13
Fort Trumbull	61.54	69.83	79.06	63.35	68.44	86	49	17.6	19.4	14	28	19	53	3	9
Fort Columbus	67.87	77.60	81.19	71.51	74.54	90	59	15.5	15.5	8	12	17	37	15	23
Fort Hamilton	67.09	68.74	76.36	73.36	71.39	86	60	14.6	11.4	11	19	18	35	2	4
West Point	67.19	71.22	77.74	69.32	71.37	85	58	13.4	13.6	18	18	5	8	0	0
Watervliet Arsenal	61.16	69.81	76.97	64.74	68.17	86	47	17.8	21.2	10	17	0	0	0	0
Plattsburg Barracks	59.96	66.06	76.48	62.70	66.30	86	47	19.7	19.3	1	3	19	30	7	7
Madison Barracks	60.64	67.80	73.77	65.38	66.90	83	48	16.1	18.9	1	2	18	49	1	2
Fort Ontario	62.50	68.00	78.50	65.30	68.57	88	43	19.4	23.6	3	3	15	22	4	7
Fort Niagara	62.35	68.93	72.00	65.51	67.20	82	50	14.8	17.2	7	28	30	93	12	32
Buffalo Barracks	62.16	71.29	76.25	67.61	69.33	85	46	15.7	23.3	7	20	13	33	7	15
Alleghany Arsenal	65.38	72.12	84.12	70.87	73.12	92	54	18.9	19.1	18	23	13	31	11	8
Carlisle Barracks	73.00	76.12	82.61	76.33	77.01	90	64	13.0	13.0	3	4	13	18	10	12
Fort Mifflin	66.54	75.87	83.74	71.97	74.53	92	56	17.5	18.5	3	5	15	32	3	4
Fort McHenry	70.50	76.60	81.19	76.15	77.36	94	55	16.6	22.4	19	30	13	41	9	18
Fort Severn	73.12	78.54	82.35	77.96	77.99	93	66	15.0	12.0	10	27	10	31	4	16
Fort Monroe	75.35	77.61	83.48	78.25	78.67	93	71	14.3	7.7	2	3	9	29	26	77
Fort Macon	77.40	79.00	79.90	79.12	78.85	83	70	4.2	8.8	2	7	14	41	19	63
Fort Johnston	77.30	86.13	87.14	79.26	82.46	93	71	10.5	11.5	0	0	10	37	23	51
Augusta Arsenal	73.93	81.74	88.77	81.54	81.49	95	70	13.5	11.5	0	0	3	6	14	28
Fort Moultrie	81.08	84.30	85.48	82.41	83.29	94	74	10.7	9.3	3	11	5	20	20	62
Oglethorpe Barracks	74.55	84.32	89.22	78.87	81.74	98	70	16.3	11.7	3	3	9	18	20	24
Fort Marion	75.39	85.45	84.16	78.84	80.96	88	72	7.0	9.0	0	0	16	37	25	57
Key West	80.29	85.70	87.58	81.00	83.64	93	76	9.4	7.6	0	0	0	0	74	130
Fort Brooke	76.48	80.83	85.58	79.64	80.63	90	70	9.4	10.6	0	0	11	11	19	20
Camp Barrancas	79.41	86.51	87.41	81.22	83.64	92	74	8.4	9.6	5	5	10	33	2	8
Mt. Vernon Arsenal	75.20	84.96	90.00	78.51	81.17	98	70	16.8	11.2	0	0	9	16	1	1
Fort Pike	80.64	87.90	90.29	81.41	85.06	98	74	12.9	11.1	4	4	3	3	8	16
Fort Wood	77.19	87.56	90.15	82.13	84.26	98	74	13.7	10.3	21	..	0	..	14	..
Pass Christian	79.41	82.58	87.29	82.41	82.92	97	74	14.1	8.9	5	6	6	7	6	8
Baton Rouge	75.10	84.26	89.80	78.22	81.84	93	70	11.2	11.8	12	17	12	20	68	147
Fort Jesup	76.06	83.48	90.80	82.45	83.20	100	72	16.8	11.2	0	0	4	7	5	9
Camp Salubrity	76.45	90.45	93.43	82.68	85.75	98	73	12.2	12.8	3	3	15	16	1	1
Fort Towson	73.61	82.87	93.00	81.73	82.80	97	68	14.2	14.8	3	3	28	28	14	14
Fort Washita	76.03	83.93	89.06	82.56	82.99	101	70	18.6	12.4	0	0	0	0	6	8
Fort Smith	72.09	84.67	89.35	78.41	81.13	98	68	16.8	13.2	0	0	5	8	9	12
Fort Gibson	75.10	79.68	86.26	78.91	79.99	91	70	11.0	10.0	0	0	0	0	0	0
Fort Scott	71.67	81.16	86.70	78.54	80.27	96	63	15.7	17.3	3	6	5	9	22	32
Jefferson Barracks	75.70	77.25	80.58	76.80	77.58	86	69	8.4	8.6	7	16	13	18	1	1
St. Louis Arsenal	73.29	81.41	91.03	80.80	81.63	98	62	16.4	19.6	7	14	20	13	17	18
Detroit Barracks	60.25	76.03	78.12	68.51	70.73	86	51	15.3	19.7	20	50	18	41	1	3

MONTH OF JULY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	9	30	31	12	13	15	27	24	42	4.41	3.93	3.64	5.32	4.32	16	15	12	0	....	
6	16	34	109	17	59	23	70	13	46	4.09	3.45	3.09	4.09	3.68	12	19	8	0	3.55	
7	19	30	96	24	66	17	37	24	62	4.41	5.32	4.74	5.03	4.89	15	16	12	0	5.34	
7	7	40	102	43	82	7	7	12	38	4.60	5.00	4.00	5.30	4.72	17	14	9	0	1.76	
1	2	48	88	17	42	23	47	14	35	4.45	4.45	4.54	4.96	4.63	14	17	6	0	1.36	
5	9	6	11	38	74	28	49	14	34	8.04	6.66	6.33	6.77	6.95	16	15	9	0	2.79	
3	6	11	29	49	125	17	38	4	4	4.16	4.26	4.54	3.90	4.21	12	19	8	0	5.78	
15	32	10	20	47	121	8	19	8	22	4.32	4.45	4.19	4.22	4.30	15	16	13	0	3.81	
23	60	6	21	35	65	3	4	17	35	3.80	5.35	5.00	4.22	4.59	15	16	13	0	6.00	
13	15	13	18	39	69	17	49	11	18	5.77	5.80	6.61	6.80	6.24	20	11	7	0	4.87	
17	22	22	25	15	18	11	11	36	38	5.22	5.32	4.83	4.70	5.01	16	15	12	0	7.90	
2	7	60	151	16	27	27	54	9	10	5.09	6.12	6.06	7.00	6.06	21	10	5	0	....	
18	29	3	2	37	83	1	3	41	72	5.80	7.45	8.51	6.45	7.05	27	4	12	0	4.78	
24	64	8	25	52	197	0	0	20	67	3.80	4.22	4.74	5.25	4.50	14	17	10	0	3.78	
11	14	32	42	11	21	16	22	29	42	3.80	4.80	6.40	6.20	5.30	19	12	6	0	1.42	
9	23	13	30	22	75	22	74	9	26	4.77	5.48	5.48	5.09	5.20	17	14	11	0	2.28	
3	6	2	5	65	176	18	58	9	25	3.87	4.67	4.87	5.29	4.67	16	15	12	0	4.77	
5	8	0	0	20	40	37	62	20	43	1.96	4.77	4.54	8.70	4.24	13	18	13	0	2.44	
0	0	3	3	19	19	50	48	26	30	5.83	6.00	6.45	6.70	6.24	19	12	10	0	7.41	Therm. protected
24	48	12	29	43	70	5	7	19	30	5.64	5.70	6.20	5.45	5.74	19	12	11	0	4.20	
14	25	7	20	17	41	34	72	11	26	5.29	6.00	6.25	5.26	5.70	22	9	9	0	3.90	
10	36	42	123	17	33	11	19	20	57	5.48	5.38	5.38	6.29	5.63	24	7	8	0	2.96	
29	62	3	4	25	71	23	59	7	16	4.61	5.03	4.70	5.96	5.07	16	15	11	0	3.58	
8	20	8	15	32	118	39	165	0	0	7.60	8.00	7.30	7.00	7.63	20	11	6	0	4.10	Inaccurate.
4	8	15	31	60	298	12	48	0	0	5.10	6.22	7.19	7.10	6.40	27	4	9	0	8.43	Inaccurate.
12	20	11	15	64	116	16	47	4	7	5.29	5.87	5.03	6.22	5.60	22	9	10	0	1.24	
2	5	28	97	34	104	31	90	1	2	5.64	5.45	5.38	6.22	5.67	22	9	8	0	4.85	Therm. protected.
17	27	36	49	17	20	20	22	2	2	4.45	4.54	4.03	6.32	4.83	15	16	16	0	13.92	
22	44	10	13	22	43	28	42	1	2	6.16	7.19	6.55	7.87	6.94	26	5	8	0	3.27	
12	16	14	15	8	10	5	10	0	0	6.87	6.22	7.12	8.80	7.25	28	3	7	0	1.26	
8	8	31	32	49	50	6	6	0	0	7.19	7.29	6.00	4.51	6.24	23	8	14	0	7.70	
7	24	2	6	55	188	23	52	14	34	3.19	3.48	4.06	4.29	3.75	7	24	11	0	7.67	
46	97	0	0	36	83	7	16	25	58	6.70	5.87	4.29	5.83	5.67	22	9	10	0	5.03	
15	30	2	6	50	105	21	62	21	63	7.35	6.51	5.54	6.74	6.53	25	6	8	0	5.76	
0	..	44	..	0	..	44	..	1	..	5.22	4.41	4.35	5.74	4.93	17	14	11	0	4.28	
17	31	12	23	12	21	7	12	3	3	3.38	4.09	4.22	4.74	4.11	14	17	12	0	7.99	
6	12	14	15	0	0	6	7	6	6	7.10	6.23	6.50	6.14	6.49	28	3	9	0	3.70	
16	24	74	95	24	32	0	0	1	2	8.64	6.41	5.32	5.74	5.77	20	11	7	0	1.77	
3	32	24	24	22	23	4	4	3	3	....	....	....	....	....	..	..	8	0	....	26 days.
41	53	13	17	16	21	3	4	6	6	5.35	6.45	6.70	7.87	6.84	24	7	5	0	5.35	
6	9	109	155	2	3	1	2	0	0	7.32	7.22	6.93	8.70	7.54	26	5	3	0	2.76	
5	6	9	13	22	41	2	2	3	3	5.87	6.29	5.51	8.32	6.50	19	12	5	0	1.37	
124	199	0	0	0	0	0	0	0	0	6.32	6.70	5.93	7.80	6.68	23	18	3	0	0.64	Therm. protected. Winds inaccurate.
20	35	18	34	45	100	5	5	6	10	3.32	4.86	5.61	6.41	5.05	19	12	10	0	10.50	
19	24	18	28	28	47	12	16	26	35	4.19	4.32	5.16	6.45	5.03	17	14	11	0	5.23	
14	12	19	27	15	15	21	16	11	16	8.00	8.41	8.45	7.22	8.02	19	12	9	0	8.10	
4	8	20	45	19	43	31	61	11	22	4.61	5.45	4.77	5.22	5.01	19	12	10	0	4.49	

MONTH OF JULY, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Gratiot..........	59.64	69.87	72.67	65.09	66.82	90	45	23.2	21.8	8	32	41	129	14	32
Fort Mackinac.........	58.83	66.61	67.74	61.38	63.64	75	45	11.4	18.6	23	88	5	12	6	16
Fort Brady............	52.10	62.18	70.12	59.83	61.06	81	36	19.9	25.1	6	6	9	4	18	18
Fort Wilkins..........	56.77	64.38	72.03	60.03	63.30	90	44	26.7	19.3	4	4	5	10	3	5
Fort Winnebago.......	62.91	73.35	78.90	69.26	71.10	88	54	16.9	17.1	9	21	5	9	4	9
Fort Crawford.........	66.50	78.14	80.00	72.13	74.19	91	57	16.8	17.2	11	13	17	17	6	7
Fort Atkinson.........	65.60	77.60	80.40	69.96	73.39	99	57	15.6	16.4	13	16	18	35	5	5
Fort Snelling..........	62.74	71.45	76.41	68.70	69.82	87	55	17.2	17.8	11	20	11	12	11	14
Fort Des Moines.......	67.93	78.77	85.38	73.77	76.46	96	51	19.5	25.5	4	5	4	5	15	11
Fort Leavenworth......	72.66	77.19	82.25	77.80	77.47	89	61	11.5	16.5	1	4	21	48	5	12

MONTH OF JULY, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
25	70	16	48	9	24	4	12	7	15	4.74	4.06	4.09	5.32	4.55	13	18	9	0	3.63	
21	38	6	13	19	70	29	99	15	35	5.58	5.74	5.77	5.35	5.66	20	10	6	0	....	
22	34	5	6	8	15	29	49	27	48	4.60	5.09	5.20	5.83	5.48	17	14	10	0	2.24	
4	6	22	59	9	25	32	65	35	61	3.77	4.25	5.00	5.22	4.56	17	14	8	0	....	
6	18	10	26	13	32	7	15	8	22	4.23	4.32	4.23	5.32	4.52	16	15	15	0	5.40	
22	22	4	6	25	29	3	2	36	46	2.26	4.22	4.22	6.10	4.20	16	15	15	0	8.81	
9	18	7	14	23	44	25	37	24	43	3.80	4.30	4.12	6.93	4.76	14	17	13	0	10.14	
7	20	6	15	18	22	17	20	43	44	4.58	5.09	5.90	5.09	5.16	17	14	11	0	4.80	
4	5	31	32	16	19	18	20	32	37	4.16	4.51	5.12	6.61	5.10	16	15	13	0	3.52	
33	81	24	41	40	112	4	8	6	17	3.83	5.12	5.96	6.68	5.39	17	14	12	0	8.08	

MONTH OF AUGUST, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	50.96	61.90	69.45	56.41	59.68	78	37	18.3	22.7	17	26	10	10	3	3
Hancock Barracks	54.06	63.35	69.42	60.19	61.75	79	41	17.2	20.8	16	38	6	13	13	35
Fort Sullivan	54.06	62.09	67.38	58.74	60.57	82	51	21.4	9.6	7	10	5	8	17	18
Fort Preble	57.00	65.00	69.00	60.00	62.75	81	50	18.2	12.8	11	38	4	12	4	12
Fort Constitution	58.03	65.35	70.12	61.67	63.79	81	52	17.2	11.8	6	16	13	29	5	5
Watertown Arsenal	58.54	70.93	76.70	63.96	67.53	90	48	22.5	19.5	4	6	16	24	8	15
Fort Adams	65.93	73.45	76.70	68.35	71.11	83	58	11.9	13.1	10	27	12	25	4	4
Fort Trumbull	61.83	68.93	76.25	66.61	68.40	85	53	16.6	15.4	12	31	16	41	6	13
Fort Columbus	67.00	73.20	80.64	70.90	72.93	89	60	16.1	12.9	4	4	16	23	7	13
Fort Hamilton	66.09	71.19	77.77	72.22	71.82	86	60	14.2	11.8	6	18	33	67	9	17
West Point	63.00	70.09	75.96	66.90	68.99	86	53	17.0	16.0	3	5	2	4	2	4
Watervliet Arsenal	64.71	72.03	81.84	68.90	71.87	88	47	16.1	24.9	1	1	0	0	0	0
Plattsburg Barracks	57.70	66.25	73.64	62.03	64.90	86	41	21.1	23.9	2	2	13	21	0	0
Madison Barracks	61.35	67.90	71.51	63.83	66.15	84	46	17.8	20.2	1	2	8	22	2	3
Fort Ontario	60.60	67.10	71.20	65.00	65.82	84	52	18.2	13.8	5	15	15	27	3	3
Fort Niagara	60.32	66.51	70.35	64.03	65.30	79	50	13.7	15.3	12	35	21	66	1	2
Buffalo Barracks	59.48	70.12	75.61	61.67	66.72	87	48	20.3	18.7	5	10	3	5	4	7
Alleghany Arsenal	61.41	69.67	78.22	66.57	68.97	89	52	20.0	17.0	11	13	3	6	4	5
Carlisle Barracks	68.29	72.12	78.51	73.48	73.10	87	58	13.9	15.1	4	5	0	0	12	13
Fort Mifflin	63.87	74.45	81.91	69.97	72.55	92	53	19.4	19.6	1	1	18	35	3	7
Fort McHenry	69.25	74.80	79.16	73.18	74.10	89	55	14.9	19.1	19	37	6	11	5	14
Fort Severn	70.77	75.38	80.61	75.06	75.45	91	58	15.5	17.5	12	36	5	17	2	4
Fort Monroe	73.45	76.41	81.93	76.74	74.13	94	63	19.9	11.1	12	3	12	27	27	62
Fort Macon	75.61	77.74	79.80	76.90	77.51	84	68	6.5	9.5	5	9	11	31	10	30
Fort Johnston	73.23	81.20	84.20	78.30	79.18	88	59	8.8	20.2	4	6	14	34	25	67
Augusta Arsenal	71.12	79.93	87.19	79.45	79.42	96	58	16.6	21.4	3	5	8	10	14	27
Fort Moultrie	78.56	82.58	84.25	80.74	81.53	89	66	7.5	15.5	9	19	14	35	34	78
Oglethorpe Barracks	71.58	81.77	87.74	78.22	79.83	95	59	15.2	20.8	30	38	5	7	33	47
Fort Marion	74.71	82.68	82.18	77.74	79.33	88	65	8.7	14.3	6	11	22	53	20	37
Key West	80.22	86.32	88.74	80.48	83.94	94	75	10.1	8.9	4	5	3	8	40	91
Fort Brooke	76.16	78.35	82.16	78.03	78.67	87	55	8.3	23.7	0	0	26	30	9	11
Camp Barrancas	75.41	84.25	85.22	78.12	80.75	90	58	9.2	22.8	7	17	17	43	5	15
Mount Vernon Arsenal	71.20	80.32	86.42	74.70	78.16	96	57	17.8	21.2	0	0	46	79	5	8
Fort Pike	76.45	84.80	87.67	80.25	82.29	93	66	10.7	16.3	5	8	15	27	20	51
Fort Wood	75.52	85.13	87.27	80.20	82.03	96	69	14.0	13.0	31	36	0	0	31	37
Pass Christian	75.83	82.87	87.58	80.93	81.80	94	64	13.2	17.8	2	2	7	8	12	17
Baton Rouge	72.64	82.90	87.16	78.25	80.24	93	66	12.8	14.2	0	0	14	33	57	112
Fort Jesup	72.60	81.32	90.03	79.83	80.94	99	64	18.1	16.9	0	0	0	0	5	10
Camp Salubrity	73.51	75.10	92.00	81.74	80.59	99	68	18.4	12.6	9	9	18	18	7	7
Fort Towson	71.70	79.32	92.00	80.00	80.75	101	60	20.2	20.8	18	19	27	39	22	23
Fort Washita	73.03	81.55	94.48	81.09	82.54	102	66	19.5	16.5	2	4	1	3	5	8
Fort Smith	67.54	78.67	86.74	74.32	76.82	95	55	18.2	21.8	0	0	4	10	24	42
Fort Gibson	71.26	75.15	86.07	77.12	77.40	94	58	16.6	19.4	0	0	15	25	13	22
Fort Scott	65.18	74.00	84.64	72.16	74.24	95	50	20.8	24.2	22	36	11	14	7	13
Jefferson Barracks	69.77	74.06	78.16	73.12	73.78	85	55	11.2	18.8	8	17	18	27	1	1
St. Louis Arsenal	65.00	73.93	86.09	74.35	74.84	98	48	13.2	16.8	24	25	8	8	8	8
Detroit Barracks	59.06	70.16	73.16	64.29	66.67	82	50	15.3	16.7	9	19	8	14	1	2

MONTH OF AUGUST, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
15	15	30	35	11	12	15	21	7	13	2.77	4.43	3.77	5.67	4.16	14	17	11	0	....	
17	61	30	74	20	64	15	47	7	20	4.00	4.16	3.90	4.55	4.15	12	19	9	0	1.80	
7	11	43	71	20	24	13	15	12	24	2.90	4.29	4.41	4.80	4.63	14	17	10	0	4.48	
3	3	54	119	35	60	5	9	8	17	3.50	4.50	3.50	5.50	4.25	14	17	7	0	2.27	
6	15	54	83	11	12	18	26	11	19	4.09	5.03	4.51	4.87	4.62	15	16	8	0	2.23	
13	26	6	15	30	67	28	50	15	24	3.87	4.32	3.61	5.02	4.20	15	16	8	0	3.30	
7	16	16	38	44	104	21	28	10	16	3.45	4.35	4.51	5.03	4.36	14	17	13	0	4.72	
13	33	18	43	37	97	12	23	10	25	4.61	5.25	4.77	5.22	4.96	16	15	13	0	2.72	
21	33	5	17	45	83	7	7	19	28	2.72	3.34	3.00	4.45	3.37	12	19	12	0	2.73	
6	10	14	16	41	76	11	29	4	13	6.80	6.32	5.00	7.19	6.32	20	11	6	0	1.72	
29	29	15	18	20	21	8	9	45	46	4.32	4.41	4.03	5.74	4.62	15	16	11	0	5.28	
0	0	68	176	1	1	41	77	13	25	4.90	5.80	5.48	4.87	5.26	18	13	3	0	....	
21	26	23	33	44	73	0	0	22	34	4.09	6.00	6.77	5.64	5.60	21	10	7	0	6.46	
39	107	14	47	43	142	1	5	16	67	3.12	3.61	3.96	4.77	4.36	9	22	14	0	3.80	
7	12	22	35	30	39	25	44	17	28	3.50	2.80	4.50	5.10	3.97	11	20	12	0	6.50	
8	18	16	56	20	66	31	98	15	48	4.06	4.06	4.22	5.09	4.35	10	21	16	0	2.26	
4	9	2	3	63	182	26	75	17	38	3.83	3.61	4.12	5.03	4.14	11	20	15	0	5.34	
3	5	10	24	43	84	28	54	22	37	1.48	4.29	3.22	5.29	3.57	11	20	14	0	4.47	
9	10	4	6	11	11	68	70	16	17	6.16	5.20	5.51	7.45	6.08	22	9	7	0	5.11	
26	58	6	16	48	84	4	5	18	28	6.10	5.96	5.16	7.00	6.05	23	8	9	0	2.80	
9	30	12	23	17	29	40	58	16	34	9.40	6.20	6.13	6.15	6.97	21	10	6	0	0.31	
16	53	27	85	12	26	28	44	22	59	5.74	5.32	5.19	6.38	5.65	21	10	8	0	1.67	
22	55	6	11	27	62	17	42	11	30	5.58	5.35	4.03	6.29	5.31	19	12	10	0	5.00	
1	3	6	11	72	80	38	121	7	14	6.58	6.40	6.10	5.80	6.22	20	11	9	0	3.55	Iaccurate.
7	15	20	60	44	194	6	14	2	4	6.50	6.21	7.20	6.60	6.62	26	5	5	0	7.90	
14	19	10	11	31	52	19	39	25	32	7.12	7.29	5.00	7.83	6.81	25	6	2	0	0.53	
13	22	19	63	18	54	16	48	1	1	6.32	6.41	6.29	7.03	6.51	24	7	7	0	4.32	
5	4	17	25	9	10	18	26	7	8	7.58	6.00	4.39	7.90	6.46	24	7	8	0	4.10	
22	41	21	35	27	42	3	6	2	8	6.55	7.39	5.32	7.19	6.61	23	8	10	0	2.68	
13	26	30	60	14	33	8	15	2	6	6.48	6.32	6.51	8.19	6.87	25	6	14	0	2.63	
2	2	5	6	47	50	26	35	9	11	5.64	6.32	6.06	4.70	5.68	25	6	14	0	15.77	
19	52	3	8	34	107	16	39	23	58	3.90	3.93	4.00	4.77	4.15	9	22	12	0	6.59	
31	46	0	0	13	21	3	6	26	49	6.64	5.35	4.90	6.67	5.89	19	12	8	0	8.29	
14	33	3	7	29	78	20	62	18	44	6.70	6.90	6.58	7.77	6.98	27	4	11	0	3.31	
0	0	31	35	0	0	31	31	0	0	5.19	5.22	4.64	6.38	5.35	19	12	10	0	8.11	
10	25	15	27	9	16	19	30	7	11	4.58	5.38	5.12	6.58	5.41	20	13	7	0	4.61	
11	19	2	3	13	34	20	43	7	18	3.28	5.12	4.12	4.40	4.23	12	19	10	0	5.60	
27	52	61	82	24	29	6	10	1	2	5.25	6.32	5.61	5.93	5.77	23	8	6	0	2.24	
33	43	20	23	21	28	4	4	5	5	....	....	.....	....	....	..	..	6	0	....	
31	40	5	7	3	4	3	3	15	16	5.87	7.00	6.45	8.22	6.63	26	5	4	0	7.96	
11	15	101	142	1	1	2	7	1	1	7.09	7.00	6.06	8.13	7.07	25	6	4	0	1.67	
9	23	5	12	19	19	5	9	3	7	6.12	5.76	6.25	7.32	6.36	21	10	4	0	0.52	
61	83	18	33	11	17	5	7	1	1	5.54	6.54	6.74	7.70	6.63	22	9	5	0	1.98	
9	24	14	34	51	111	6	9	4	5	4.90	4.74	6.42	8.78	5.96	22	9	6	0	2.51	
10	21	20	38	23	47	18	38	26	41	3.41	6.09	4.93	7.54	5.49	21	10	6	0	0.71	
25	26	17	18	8	8	22	25	12	14	8.58	9.54	9.64	8.22	8.99	26	5	3	0	1.47	
2	4	19	45	22	60	30	78	33	73	3.03	4.06	3.99	6.03	4.28	14	17	14	0	3.27	

MONTH OF AUGUST, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Gratiot	58.00	67.03	73.22	62.77	65.25	85	46	19.7	19.3	7	26	28	92	5	11
Fort Mackinac	57.61	65.70	67.32	59.93	62.64	80	50	17.4	12.6	6	12	5	14	11	38
Fort Brady	54.40	60.90	66.60	58.80	60.17	80	44	19.8	16.2	6	12	1	3	13	14
Fort Wilkins	57.70	64.19	69.80	60.70	63.10	84	48	20.9	15.1	3	11	7	11	3	3
Fort Winnebago	58.48	68.09	74.74	64.41	66.43	87	47	20.6	19.4	5	15	0	0	5	18
Fort Crawford	62.40	74.20	75.22	68.20	70.00	88	50	18.0	20.0	0	0	10	12	3	3
Fort Atkinson	60.49	69.70	75.33	64.09	67.40	91	50	13.6	17.4	18	25	6	13	1	1
Fort Snelling	57.25	69.29	72.22	63.67	65.61	85	44	19.4	21.6	7	11	6	7	2	2
Fort Des Moines	62.19	73.09	80.16	71.02	71.61	92	42	20.4	29.6	27	34	1	1	9	8
Fort Leavenworth	69.14	73.16	79.24	74.11	73.91	91	54	17.1	19.9	5	6	19	34	12	19

MONTH OF AUGUST, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
28	84	9	21	25	69	5	13	17	50	3.87	4.25	4.03	5.64	4.44	12	19	14	0	4.99	
6	14	13	30	34	95	55	112	14	42	5.19	5.03	5.48	6.03	5.43	16	15	11	0	....	
30	63	5	2	13	29	34	95	22	54	3.70	3.38	3.77	4.64	4.90	8	23	18	0	4.98	
8	24	31	89	32	110	10	25	28	82	3.09	3.77	4.64	5.00	4.12	13	18	11	0	....	
7	21	6	22	15	31	14	52	25	84	4.96	4.80	4.22	5.77	4.94	15	16	13	0	5.16	
25	32	8	11	15	19	2	5	61	82	4.40	4.00	4.28	6.50	4.79	18	13	14	0	6.06	
18	24	17	30	14	32	4	9	46	72	4.93	4.38	4.56	7.29	5.29	18	13	9	0	5.09	
21	31	18	19	34	35	14	24	22	29	4.67	6.16	6.25	5.32	5.60	22	9	8	0	4.37	
3	5	25	36	9	20	35	43	15	24	5.00	5.61	8.58	5.09	5.32	20	11	5	0	....	
13	26	37	111	11	34	8	7	22	42	3.27	5.80	6.70	7.20	5.74	21	10	10	0	4.80	

MONTH OF SEPTEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	44.53	53.66	65.23	50.46	53.47	80	22	26.5	31.5	18	39	11	11	8	8
Hancock Barracks	46.60	55.22	65.97	54.13	55.48	84	28	28.5	27.5	28	72	9	22	7	23
Fort Sullivan	50.83	61.20	67.76	55.20	58.75	85	33	26.2	25.8	18	23	15	25	8	13
Fort Preble	53.00	59.00	64.00	56.00	58.00	78	34	20.0	24.0	18	71	12	44	6	19
Fort Constitution	54.46	60.02	66.23	58.20	59.73	82	34	22.3	25.7	14	31	22	63	6	15
Watertown Arsenal	51.30	60.30	70.76	56.36	59.68	86	29	26.3	20.7	6	13	20	56	12	18
Fort Adams	59.00	64.46	68.70	61.76	63.48	78	51	14.5	12.5	21	64	34	99	7	16
Fort Trumbull	54.30	61.61	70.90	59.06	61.47	84	38	22.5	23.5	31	96	20	77	11	46
Fort Columbus	60.33	65.26	73.10	64.46	65.79	84	46	18.2	19.8	14	19	32	65	13	32
Fort Hamilton	60.13	64.40	73.93	65.83	66.07	87	46	20.9	20.1	12	39	56	100	3	7
West Point	55.83	61.93	70.63	61.20	62.40	82	40	19.6	22.4	18	43	13	15	1	2
Watervliet Arsenal	53.43	61.50	72.03	60.33	61.82	89	32	27.2	29.8	10	33	0	0	0	0
Plattsburg Barracks	51.13	58.83	70.46	53.86	58.57	83	30	24.4	28.6	12	18	28	35	2	2
Madison Barracks	55.06	61.93	66.73	58.81	60.63	81	33	20.4	27.6	1	3	30	81	1	2
Fort Ontario	55.80	62.10	67.20	59.20	61.07	88	32	26.9	29.1	6	11	19	28	11	11
Fort Niagara	56.70	63.50	65.66	59.54	61.35	84	42	22.6	19.4	15	45	32	91	1	1
Buffalo Barracks	53.76	63.10	69.96	58.53	61.34	80	33	18.7	28.3	15	37	14	31	7	18
Alleghany Arsenal	54.06	61.70	72.60	60.40	62.19	86	35	23.8	27.2	31	36	20	25	18	20
Carlisle Barracks	62.20	63.50	73.66	67.26	66.65	86	44	19.3	22.7	8	9	1	1	46	47
Fort Mifflin	57.16	67.85	74.43	62.66	65.52	86	43	20.5	22.5	8	20	42	90	6	10
Fort McHenry	60.00	68.50	72.83	65.15	66.62	85	42	18.4	24.6	23	52	18	60	13	34
Fort Severn	64.60	68.90	74.13	68.73	69.09	86	45	16.9	24.1	23	79	18	53	3	7
Fort Monroe	68.46	71.40	75.46	71.16	71.62	84	51	12.4	20.6	1	4	22	98	32	115
Fort Macon	69.86	71.76	74.16	70.86	71.66	80	56	8.3	15.7	18	64	32	112	17	38
Fort Johnston	68.13	79.30	80.50	73.40	75.33	87	46	11.7	29.3	2	2	36	183	18	69
Augusta Arsenal	67.96	73.63	81.30	74.83	74.43	98	48	23.6	26.4	3	5	37	72	26	44
Fort Moultrie	72.51	74.90	77.73	75.46	75.15	84	56	8.8	19.2	18	57	34	113	29	71
Oglethorpe Barracks	67.20	75.30	81.86	73.33	74.42	98	48	23.6	26.4	38	43	28	47	27	41
Fort Marion	73.37	78.63	79.37	76.36	76.93	85	57	8.1	19.9	18	49	33	115	33	78
Key West	79.63	86.10	87.43	80.86	83.50	93	76	9.5	7.5	8	14	8	21	54	97
Fort Brooke	74.30	76.76	81.63	76.70	77.35	86	64	8.6	13.4	5	12	33	47	27	28
Camp Barrancas	71.13	82.86	82.66	75.16	77.95	88	48	10.0	30.0	26	96	13	42	28	82
Mount Vernon Arsenal	67.20	75.00	82.20	71.50	73.97	92	46	18.0	28.0	0	0	92	255	0	0
Fort Pike	71.23	79.73	85.56	76.80	78.33	94	48	15.7	30.3	11	24	31	72	35	85
Fort Wood	73.30	80.48	85.20	77.30	79.07	97	51	17.9	28.1	39	40	3	3	53	57
Pass Christian	71.33	80.90	85.21	77.28	78.68	97	46	18.3	32.7	16	21	6	7	35	59
Baton Rouge	67.14	77.17	85.24	72.11	75.41	92	50	16.6	25.4	8	20	35	85	39	93
Fort Jesup	63.96	74.66	83.86	72.23	73.68	100	36	26.3	37.7	4	4	52	75	10	14
Camp Salubrity	64.43	77.13	85.47	75.03	75.51	96	44	20.5	31.5	39	51	16	19	5	6
Fort Towson	61.00	72.10	84.80	70.00	71.97	95	35	23.0	37.0	18	23	37	38	28	37
Fort Washita	62.33	71.83	81.70	69.10	71.24	98	42	26.8	29.2	19	36	12	25	11	19
Fort Smith	58.50	69.18	78.26	66.01	68.06	89	32	20.9	36.1	2	5	8	14	38	63
Fort Gibson	61.49	66.65	77.76	68.58	68.67	91	35	22.3	33.7	3	6	39	70	8	10
Fort Scott	52.66	63.13	72.96	62.66	62.85	93	31	30.1	31.9	37	78	17	35	8	15
Jefferson Barracks	60.73	65.30	69.50	64.43	64.99	82	43	17.0	22.0	17	24	34	62	9	12
St. Louis Arsenal	56.40	66.23	78.36	66.00	66.75	92	38	25.2	28.8	24	17	31	32	8	8
Detroit Barracks	51.93	67.18	71.23	58.66	62.25	86	34	23.7	28.3	19	41	9	17	3	7

MONTH OF SEPTEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	4	31	40	8	12	24	43	7	14	4.60	5.76	5.63	6.96	5.74	19	11	8	0	1.36	
12	42	18	51	14	39	17	54	15	50	4.80	4.87	4.90	6.13	5.17	17	13	6	0	1.85	
20	29	13	21	12	17	12	21	22	42	5.46	5.36	6.36	7.13	6.00	19	11	6	0	2.35	
4	14	36	90	27	51	8	23	9	24	5.00	5.50	5.20	5.90	5.40	19	11	4	0	1.76	
5	9	23	56	6	14	24	33	20	49	5.53	6.06	5.90	6.33	5.95	20	10	4	0	2.57	
11	17	5	16	18	34	16	21	28	53	7.27	8.33	7.00	9.13	8.19	18	12	6	0	4.72	
9	21	15	34	22	48	6	22	6	19	4.29	5.66	5.20	6.76	5.47	18	12	9	0	5.25	
7	17	10	31	22	46	9	26	10	28	4.50	5.70	5.33	7.66	5.79	19	11	13	0	2.40	
12	17	4	11	16	23	10	19	19	38	3.10	5.10	5.80	6.50	5.12	18	12	4	0	4.50	
3	4	5	7	31	51	8	17	2	5	7.13	6.53	7.63	6.96	7.06	25	5	6	0	4.30	
17	20	9	12	8	8	4	9	50	60	4.90	6.40	6.83	6.80	6.23	21	9	6	0	3.50	
0	0	67	153	4	11	22	49	11	16	6.63	6.50	6.80	6.76	6.67	21	9	4	0	....	
10	25	7	14	16	45	2	3	43	59	5.33	7.03	8.30	5.80	6.11	25	5	4	0	3.35	
34	78	4	14	26	85	3	14	21	88	4.60	4.83	5.90	6.66	5.49	17	13	4	0	0.41	
17	20	23	24	20	26	9	16	15	34	3.80	4.50	5.80	6.60	5.17	16	14	2	0	0.54	
5	14	18	44	10	38	7	20	32	113	4.30	4.80	6.30	7.10	5.62	17	13	3	0	0.26	
3	5	2	6	48	138	15	48	16	45	4.43	4.76	5.10	7.53	5.45	16	14	3	0	0.22	
5	3	8	10	12	31	12	15	14	23	2.06	6.23	5.20	7.23	5.18	18	12	4	0	2.57	
6	6	8	10	2	3	42	37	7	8	6.43	6.83	5.46	6.90	6.40	21	9	4	0	4.35	
11	17	3	6	18	32	2	5	30	51	6.23	7.26	5.66	7.13	6.57	23	7	6	0	4.30	
13	21	23	35	3	13	12	23	15	49	6.50	6.27	7.40	7.50	6.91	20	10	5	0	4.45	
28	69	15	55	5	13	8	17	20	67	5.20	6.40	6.23	7.00	6.20	20	10	8	0	6.47	
20	53	5	9	5	11	15	41	20	65	4.53	4.96	5.26	7.13	5.47	16	14	6	0	4.76	
4	9	8	20	7	19	9	14	13	30	5.03	5.83	5.06	6.66	5.64	17	13	10	0	11.25	Rain in excess.
12	54	12	42	17	61	8	35	15	36	5.00	5.20	6.20	6.20	5.65	22	8	12	0	9.86	Rain in excess.
14	18	0	0	17	17	3	10	20	34	5.83	5.46	5.30	6.80	5.77	18	12	3	0	2.34	
5	16	3	6	11	69	11	38	9	30	5.03	4.83	5.46	6.40	5.43	17	13	9	0	6.05	
1	1	6	8	1	1	15	25	4	5	5.23	4.73	4.23	5.80	5.00	18	12	8	0	6.08	
14	39	9	21	11	17	1	1	1	3	5.23	5.90	5.40	6.63	5.79	19	11	13	0	7.13	
15	27	12	18	4	13	5	8	4	12	5.33	5.13	6.00	3.06	4.88	21	9	14	0	8.50	
8	8	8	11	26	30	3	3	10	11	4.50	5.70	6.23	5.00	5.35	16	14	11	0	3.50	
8	32	15	38	8	27	21	45	1	2	5.50	6.50	5.30	6.90	6.05	19	11	5	0	2.61	
9	27	0	0	4	5	0	0	14	48	7.33	6.53	5.40	7.13	6.60	22	8	4	0	0.98	Winds inaccurate.
17	35	2	4	5	8	5	11	14	37	7.56	7.06	6.93	7.93	7.37	26	4	7	0	1.61	
0	0	14	20	2	3	8	8	1	1	5.05	5.09	4.25	5.86	5.06	17	13	4	0	1.50	
10	17	0	0	3	6	3	3	1	1	6.53	6.40	4.83	5.87	5.91	20	10	3	0	0.22	
8	18	0	0	0	0	21	48	8	17	2.27	4.22	5.13	4.22	3.96	16	14	4	0	1.10	
15	27	38	38	0	0	1	1	0	0	5.40	6.30	5.86	6.23	5.94	20	10	6	0	2.83	
5	5	1	1	4	4	8	8	40	55	....	....	....	....	....	16	14	6	0	....	
11	15	3	5	2	2	0	0	21	33	6.43	7.40	6.00	8.13	6.74	24	6	2	0	1.30	
8	13	54	80	1	2	5	10	10	14	6.83	7.03	6.60	7.30	6.94	26	4	3	0	2.25	
4	14	4	8	1	2	6	11	15	28	5.28	6.04	6.16	7.20	6.17	21	9	7	0	2.08	
39	55	11	17	10	17	3	3	7	12	5.56	7.16	6.40	8.16	6.82	21	9	4	0	0.76	
5	15	16	34	21	53	5	11	11	27	4.70	5.50	5.73	7.10	5.75	20	10	7	0	3.33	
6	9	10	15	6	10	22	43	16	35	5.90	5.60	5.93	6.63	6.03	21	9	2	0	1.80	
15	15	14	18	7	7	7	8	14	15	7.60	8.36	8.53	6.80	7.82	28	2	1	0	0.03	
9	15	32	57	18	38	14	28	16	39	4.00	5.13	5.46	6.66	5.31	19	11	5	0	1.03	

MONTH OF SEPTEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Fort Gratiot	52.09	61.83	70.53	57.26	60.43	86	39	25.6	21.4	3	11	25	85	10	23
Fort Mackinac	52.06	57.56	59.00	53.46	55.52	76	36	20.5	19.5	24	63	14	35	3	4
Fort Brady	47.60	53.50	61.00	51.30	53.35	81	31	27.6	22.4	10	19	11	26	27	39
Fort Wilkins	50.43	58.30	62.40	52.16	55.82	80	34	24.2	21.8	14	60	12	30	3	4
Fort Winnebago	50.86	60.66	68.93	55.96	59.10	87	31	27.9	28.1	12	24	1	2	3	8
Fort Crawford	53.14	61.18	68.12	59.29	60.43	86	36	25.6	24.4	2	5	11	16	2	2
Fort Atkinson	50.70	60.36	66.56	55.83	58.36	90	31	31.6	27.4	25	34	8	12	1	1
Fort Snelling	47.60	57.63	63.30	53.76	55.57	81	33	25.4	22.6	2	5	8	11	4	9
Fort Des Moines	50.46	60.60	69.13	57.26	59.36	86	30	26.6	29.4	20	29	0	0	18	18
Fort Leavenworth	58.16	62.23	69.50	63.86	63.44	87	40	23.6	23.4	28	41	14	19	6	4

MONTH OF SEPTEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
45	120	5	15	11	34	3	7	18	50	4.66	4.90	4.86	6.33	5.23	16	14	7	0	1.38	
13	30	7	15	33	93	14	49	12	31	5.50	6.40	6.40	7.60	6.47	21	9	10	0	....	
23	37	5	14	10	17	20	53	14	36	3.43	4.36	4.73	5.46	4.49	11	19	11	0	4.81	
10	28	19	66	32	84	11	33	21	73	3.13	3.83	3.66	5.60	4.05	14	16	9	1	....	
7	23	17	44	9	34	15	39	9	32	4.60	5.93	5.70	6.30	5.63	18	12	8	0	2.73	
32	37	7	9	21	26	0	0	45	64	3.22	6.70	5.20	6.30	5.35	16	14	7	0	2.46	
18	35	20	43	12	25	6	16	30	42	5.66	5.43	5.36	7.36	5.95	20	10	7	0	2.35	
24	42	27	30	22	20	8	10	25	66	6.10	5.90	7.10	5.00	6.02	22	8	9	0	4.26	
16	17	29	35	11	13	23	18	3	2	6.30	6.23	6.13	7.10	6.44	20	10	10	0	4.13	
35	70	18	49	2	7	3	3	14	31	3.93	4.50	5.60	7.33	5.34	16	14	5	0	1.60	

MONTH OF OCTOBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	34.41	39.45	47.29	38.12	39.82	59	21	19.2	18.8	18	27	18	24	6	8
Hancock Barracks	37.48	42.41	49.32	41.77	42.74	62	24	19.3	18.7	13	38	8	26	14	61
Fort Sullivan	44.29	50.64	53.83	47.58	49.08	66	33	16.9	16.1	5	10	5	16	8	23
Fort Preble	43.00	47.50	52.30	46.20	47.25	67	32	19.7	15.3	22	90	4	18	1	1
Fort Constitution	44.48	48.09	54.12	48.03	48.68	71	33	22.3	15.7	15	30	15	43	7	15
Watertown Arsenal	41.45	49.09	56.74	46.32	48.40	72	26	23.6	22.4	6	11	15	44	6	13
Fort Adams	50.06	54.00	57.54	52.93	53.63	68	39	14.4	14.6	15	50	21	63	12	32
Fort Trumbull	45.71	49.64	56.35	49.03	50.18	68	33	17.8	17.2	24	60	18	64	4	10
Fort Columbus	50.06	53.35	59.06	51.60	53.52	73	36	19.5	17.5	9	22	22	45	26	69
Fort Hamilton	49.26	52.00	58.26	52.87	53.10	68	37	14.9	16.1	17	45	36	76	3	6
West Point	46.82	49.44	54.72	48.27	49.81	72	33	22.2	16.8	11	17	2	2	2	3
Watervliet Arsenal	39.55	46.19	55.65	45.45	46.71	68	32	21.3	14.7	11	23	0	0	0	0
Plattsburg Barracks	38.09	43.32	50.00	40.16	42.89	68	19	25.1	23.9	5	9	39	78	9	19
Madison Barracks	40.45	45.35	49.83	43.12	44.69	66	24	21.3	20.7	3	13	42	135	1	3
Fort Ontario	41.40	46.10	49.50	43.00	45.00	68	30	23.0	15.0	4	6	31	65	9	14
Fort Niagara	42.06	46.74	49.48	45.19	45.84	64	28	18.2	17.8	6	27	19	82	6	12
Buffalo Barracks	39.41	46.77	52.12	43.54	45.46	68	24	22.5	21.5	16	45	7	17	5	13
Alleghany Arsenal	41.48	46.35	55.12	45.64	47.15	69	26	21.8	21.2	22	28	4	6	14	14
Carlisle Barracks	50.09	53.25	59.19	54.93	54.36	72	38	17.6	16.4	8	6	0	0	27	29
Fort Mifflin	46.90	53.32	59.22	50.22	52.41	72	34	19.6	18.4	11	20	31	68	2	5
Fort McHenry	48.90	51.28	58.25	53.10	52.88	69	38	16.1	14.9	15	29	21	47	15	28
Fort Severn	52.35	55.96	60.41	54.93	55.91	68	39	12.1	16.9	15	48	8	25	4	4
Fort Monroe	57.51	60.19	64.71	59.84	60.56	74	41	13.4	19.6	8	26	26	79	16	39
Fort Macon	60.20	61.24	64.16	62.30	61.97	73	45	11.0	17.0	45	153	15	40	7	13
Fort Johnston	56.17	64.70	71.29	62.30	63.61	79	35	15.4	28.6	6	23	35	142	18	45
Augusta Arsenal	56.58	68.06	70.51	60.61	63.94	80	36	16.1	27.9	3	4	28	46	16	29
Fort Moultrie	63.29	66.11	69.80	67.19	66.60	79	45	12.4	21.6	26	97	23	69	15	42
Oglethorpe Barracks	55.55	65.38	72.77	62.58	64.07	82	32	17.9	32.1	47	58	5	8	19	24
Fort Marion	65.87	73.61	74.16	70.03	70.92	82	43	11.1	27.9	30	125	31	86	20	46
Key West	75.64	81.09	81.83	76.64	78.80	86	66	7.2	12.8	19	68	37	146	44	157
Fort Brooke	67.12	71.77	77.61	72.45	72.24	82	45	9.8	27.2	0	0	60	70	30	53
Camp Barrancas	59.22	72.90	75.22	67.70	68.76	84	40	15.2	28.8	32	81	14	43	35	95
Mount Vernon Arsenal	56.00	60.76	71.84	62.00	62.65	82	39	19.3	23.7	1	6	60	149	2	4
Fort Pike	60.70	68.06	73.35	66.16	67.07	84	42	16.9	25.1	7	17	27	54	34	88
Fort Wood	62.00	69.40	75.20	66.20	68.20	84	46	15.8	22.2	44	50	4	5	45	47
Pass Christian	61.64	69.32	75.96	66.87	68.45	85	53	16.5	15.5	15	18	16	18	21	29
Baton Rouge	56.24	67.31	77.30	64.29	66.28	85	40	18.7	26.3	19	42	28	65	30	67
Fort Jesup	52.93	57.87	70.74	62.19	60.93	88	35	28.1	25.9	10	15	41	48	3	3
Camp Salubrity	56.00	66.00	74.00	65.00	65.25	86	39	20.7	26.3	19	19	14	17	13	21
Fort Towson	51.09	58.39	70.77	58.32	59.64	86	28	26.4	31.6	17	28	23	30	18	27
Fort Washita	53.64	59.06	68.90	60.97	60.64	86	32	25.4	28.6	10	27	5	9	9	18
Fort Smith	46.45	56.77	68.32	53.25	56.20	82	30	25.8	26.2	6	11	4	15	46	98
Fort Gibson	50.65	55.51	68.40	57.10	57.91	86	27	28.1	30.9	19	43	25	41	6	12
Fort Scott	42.77	52.16	61.54	50.90	51.84	81	26	29.2	25.8	24	52	17	39	7	14
Jefferson Barracks	47.45	52.14	58.90	52.65	52.78	72	29	19.2	23.8	21	48	27	35	5	5
St. Louis Arsenal	41.93	50.22	61.19	50.83	51.04	78	22	26.0	29.0	14	52	9	15	15	15
Detroit Barracks	39.43	51.19	54.61	43.87	47.27	72	18	24.7	29.3	21	61	1	3	2	3

MONTH OF OCTOBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	8	22	31	9	14	26	46	15	35	2.25	3.22	3.51	4.80	3.47	12	19	10	5	4.41	
12	42	30	93	14	50	21	55	12	38	2.84	2.87	3.77	4.65	3.53	11	20	11	1	4.62	
14	30	18	42	25	43	24	36	25	39	3.90	4.19	4.51	4.87	4.61	11	20	8	0	2.54	
10	54	30	74	39	73	12	48	6	17	4.10	4.30	3.80	5.50	4.42	14	17	9	0	4.66	
13	48	15	49	14	29	22	60	23	50	4.51	4.58	3.93	4.61	4.40	14	17	11	0	4.54	
15	32	10	30	26	66	29	53	15	32	6.47	7.66	7.52	7.95	7.40	13	18	11	1	5.86	
8	23	13	32	16	45	20	60	19	54	3.13	3.80	3.41	4.16	3.62	10	21	14	0	8.30	
10	31	6	12	14	44	34	91	14	40	3.64	4.41	4.13	4.74	4.23	12	19	14	0	5.39	
8	20	1	4	11	22	21	54	26	86	4.45	4.23	4.20	5.26	4.28	14	17	10	0	4.08	
5	7	6	7	22	36	13	39	22	52	3.87	4.58	5.00	5.54	4.74	15	16	8	0	3.78	
13	15	14	22	18	17	18	21	46	57	2.55	3.60	3.23	5.03	3.60	10	21	5	0	4.92	
1	1	71	208	6	11	24	52	11	18	3.96	5.54	4.29	3.19	4.24	12	19	6	0	....	
8	26	9	24	23	87	15	32	16	29	3.96	4.54	4.67	3.77	4.23	15	16	8	1	4.53	
31	86	9	28	18	71	4	16	16	72	3.09	3.54	3.22	3.70	3.38	11	20	9	2	3.52	
28	30	12	22	18	34	5	10	17	56	2.40	3.20	3.30	4.50	3.37	10	21	8	1	4.89	
26	71	14	36	23	70	10	40	20	94	3.06	3.61	4.54	4.35	3.88	12	19	9	1	1.47	
7	18	6	14	31	100	28	86	24	69	3.03	3.35	3.41	5.29	3.77	11	20	10	4	3.90	
10	11	2	3	13	4	34	61	25	44	1.51	3.77	3.64	4.19	3.25	9	22	15	0	2.85	
15	17	2	4	0	0	46	44	26	34	2.64	3.90	4.48	4.74	3.94	12	19	5	1	6.03	
13	29	5	9	24	64	13	34	25	45	3.51	4.16	4.38	6.64	4.67	15	16	10	0	6.00	
16	30	6	9	5	11	28	62	18	51	3.29	4.20	5.15	5.26	4.47	17	14	10	0	3.03	
19	52	19	61	10	24	12	85	37	102	4.22	4.32	4.58	6.00	4.78	15	16	12	0	4.28	
22	46	1	2	13	30	15	38	23	55	4.51	4.45	4.64	5.80	4.87	15	16	9	0	2.25	
3	6	13	34	9	25	10	26	18	42	6.18	7.18	6.50	6.13	6.50	19	12	7	0	2.55	Therm. protected.
7	19	12	29	19	75	9	30	18	47	4.21	6.60	6.16	6.29	5.81	25	6	6	0	2.42	
1	3	2	3	23	40	23	45	28	43	5.77	6.61	4.09	6.62	5.77	20	11	2	0	0.27	
6	10	9	25	9	27	16	47	20	74	5.64	5.67	6.29	6.61	6.05	21	10	4	0	0.91	
0	0	10	16	6	9	32	46	5	9	6.38	6.64	5.70	6.77	6.37	23	8	3	0	0.57	
1	2	13	18	8	14	13	18	7	20	5.52	6.13	5.97	5.68	5.82	20	11	5	0	0.49	
4	14	10	27	1	2	3	13	3	15	6.74	7.00	6.54	7.70	7.00	27	4	8	0	14.07	
3	6	27	22	2	7	1	6	1	1	5.77	7.41	7.90	5.54	6.65	26	5	3	0	2.20	
5	18	7	27	4	17	17	50	10	30	4.58	5.90	5.87	7.87	6.05	23	8	9	0	1.99	
24	43	0	0	9	19	1	6	27	101	7.00	6.36	6.42	7.10	6.72	24	7	5	0	2.90	
7	10	2	5	15	37	11	31	21	71	6.41	7.45	8.00	9.06	7.73	27	4	5	0	3.30	
1	1	21	21	0	0	8	8	1	1	6.25	6.16	6.32	7.38	6.55	27	4	5	0	4.06	
6	9	5	6	10	16	4	7	5	7	6.25	6.38	6.84	7.68	6.79	25	6	5	0	1.54	
7	16	2	3	13	34	15	38	10	23	2.15	5.25	7.90	3.27	4.64	20	11	4	0	3.60	
9	24	45	53	0	0	0	0	16	21	4.38	5.09	5.96	5.54	5.24	15	16	7	0	2.81	
35	63	4	13	3	7	5	8	31	44	6.25	6.00	5.85	7.00	6.25	21	10	7	0	....	
19	45	2	3	3	4	3	3	39	64	4.58	4.90	5.35	6.29	5.28	17	14	8	0	2.77	
16	34	39	76	22	53	9	14	14	33	4.74	4.83	5.64	7.13	5.58	17	14	5	0	3.80	
6	20	9	29	9	14	24	60	19	51	6.52	6.80	6.48	7.87	6.84	21	10	7	0	2.01	
45	101	12	40	4	5	3	5	10	25	5.26	5.45	5.74	6.32	5.66	18	13	5	0	3.28	
4	9	16	38	29	87	19	44	8	14	2.90	4.06	5.16	6.58	4.67	17	14	7	0	2.49	
18	38	10	24	14	28	4	4	25	61	5.70	6.20	6.15	6.70	6.18	18	13	4	0	1.06	
20	27	8	11	9	14	9	10	20	32	6.51	7.19	7.41	5.25	6.52	24	7	8	0	2.68	
0	0	27	58	22	51	26	62	25	66	2.58	3.90	4.29	6.77	4.38	15	16	8	1	1.85	

MONTH OF OCTOBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Gratiot	39.45	45.45	54.19	43.16	45.56	73	24	27.4	21.6	2	4	18	79	4	10
Fort Mackinac	40.61	43.64	47.48	42.12	43.46	62	17	18.5	26.5	28	82	6	23	9	26
Fort Brady	34.83	40.48	45.41	38.70	39.85	60	14	20.1	25.9	13	40	18	46	22	38
Fort Wilkins	37.16	44.48	46.51	38.41	41.64	67	21	25.4	20.6	3	5	11	30	5	11
Fort Winnebago	34.84	43.71	52.45	43.77	43.69	75	15	31.3	28.7	15	42	0	0	0	0
Fort Crawford	38.19	49.30	54.30	45.19	46.74	73	18	26.3	28.7	3	4	10	11	2	2
Fort Atkinson	35.87	43.87	52.06	41.22	43.25	73	19	29.7	24.3	29	49	16	28	3	5
Fort Snelling	34.80	41.03	49.64	40.35	41.45	71	22	29.5	19.5	1	3	0	0	4	9
Fort Des Moines	36.51	44.45	58.45	44.03	45.86	76	22	30.1	23.9	12	15	0	0	9	4
Fort Leavenworth	45.09	49.38	59.38	53.00	51.46	79	29	27.5	22.5	21	41	8	18	2	4

MONTH OF OCTOBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
41	116	9	29	28	82	2	7	20	63	3.22	3.19	4.16	5.61	4.04	12	19	11	1	2.68	
16	59	20	64	18	73	9	32	18	61	4.87	5.00	4.80	3.70	4.59	16	15	3	3	....	
27	67	3	3	11	28	15	63	15	53	5.41	4.48	4.29	6.22	5.10	15	16	6	4	2.18	
19	44	20	50	22	65	13	38	31	109	1.70	1.29	2.25	4.51	2.44	10	21	8	4	....	
22	85	8	24	9	26	16	59	13	44	4.97	4.90	5.48	5.61	5.24	18	13	6	1	0.73	
22	38	6	12	22	28	2	2	57	106	3.29	5.80	5.50	7.00	5.39	18	13	5	0	0.76	
7	17	22	59	13	27	9	18	25	56	5.45	4.87	4.61	6.41	5.33	16	15	4	0	1.81	
37	93	23	24	14	21	14	34	31	83	4.80	5.38	5.41	4.58	5.04	16	15	3	3	0.97	
3	5	29	47	6	14	59	54	6	12	6.34	5.90	6.35	7.38	6.49	19	12	5	1	1.00	
13	44	21	69	22	39	2	3	35	39	4.41	6.45	6.32	5.41	5.64	20	11	1	2	0.40	

MONTH OF NOVEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	22.93	26.26	31.03	26.13	26.59	48	— 6	21.4	32.6	14	25	8	11	3	4
Hancock Barracks	25.40	28.02	34.03	27.43	28.72	62	0	33.3	28.7	20	46	7	13	14	28
Fort Sullivan	32.53	37.70	41.73	35.59	36.89	60	6	23.1	30.9	21	28	5	8	8	22
Fort Preble	32.90	35.30	39.60	35.80	35.90	52	11	16.1	24.9	14	35	11	36	5	18
Fort Constitution	35.33	37.60	42.50	37.60	38.26	56	14	17.7	24.3	15	31	10	20	9	15
Watertown Arsenal	30.90	36.23	43.30	34.76	36.30	58	12	21.7	24.3	1	3	12	20	6	11
Fort Adams	39.83	42.20	46.06	42.83	42.73	57	18	14.3	24.7	30	130	30	68	7	16
Fort Trumbull	35.46	37.73	45.53	39.66	39.59	60	16	20.4	23.6	30	78	14	42	2	3
Fort Columbus	40.60	42.80	48.13	41.80	43.33	62	26	18.7	17.3	13	23	18	41	13	27
Fort Hamilton	40.10	42.16	48.03	43.40	43.42	63	26	19.6	17.4	5	16	52	90	9	16
West Point	35.90	38.03	43.50	39.66	39.27	60	20	20.7	19.3	10	16	4	3	1	2
Watervliet Arsenal	30.70	36.23	41.23	33.10	35.31	48	18	12.7	17.3	9	31	0	0	0	0
Plattsburg Barracks	26.73	28.66	32.26	29.13	29.19	44	4	14.8	25.2	21	41	10	18	4	6
Madison Barracks	30.96	32.50	37.76	33.93	33.79	46	11	12.2	22.8	1	2	31	82	3	8
Fort Ontario	32.40	35.80	39.60	35.60	35.85	58	15	22.1	20.9	4	13	11	25	4	5
Fort Niagara	35.10	37.73	42.26	38.50	38.40	58	18	19.6	20.4	0	0	6	23	2	6
Buffalo Barracks	32.76	36.83	41.23	36.30	36.78	54	20	17.2	16.8	15	35	2	3	3	8
Alleghany Arsenal	34.56	35.93	45.86	38.03	38.59	64	22	25.4	16.6	28	37	25	24	0	0
Carlisle Barracks	37.76	40.96	45.90	41.83	41.61	60	25	18.4	16.6	6	5	6	7	25	25
Fort Mifflin	37.76	42.53	48.93	41.16	42.59	63	26	20.4	16.6	1	1	20	33	4	12
Fort McHenry	38.80	42.20	48.12	42.21	41.08	64	24	22.9	17.1	5	5	5	6	11	12
Fort Severn	42.86	45.96	50.56	46.00	46.34	63	26	16.7	20.3	11	35	2	4	3	3
Fort Monroe	49.80	51.36	56.60	52.10	52.46	73	30	20.5	22.5	3	6	14	32	19	33
Fort Johnston	51.29	59.50	65.10	57.20	59.77	78	32	18.2	27.8	8	20	22	84	15	40
Augusta Arsenal	51.50	54.83	63.40	58.85	57.14	74	39	16.8	18.2	13	14	9	8	6	9
Fort Moultrie	58.65	61.63	65.35	62.05	61.92	74	44	12.1	17.9	17	56	8	23	8	24
Oglethorpe Barracks	52.40	60.20	68.86	58.46	60.00	82	42	22.0	18.0	46	59	0	0	15	16
Fort Marion	62.46	69.53	71.72	65.60	67.33	83	52	15.7	15.3	36	81	23	54	14	26
Key West	74.00	79.80	80.60	74.76	77.29	83	66	5.7	11.3	12	33	31	112	28	54
Fort Brooke	65.06	68.30	75.26	69.93	69.64	80	55	10.4	14.6	0	0	4	29	0	0
Camp Barrancas	57.13	66.06	69.00	60.26	63.11	80	42	16.9	21.1	33	100	22	66	9	31
Mt. Vernon Arsenal	52.36	55.50	64.10	56.33	57.07	76	36	18.9	21.1	0	0	23	56	0	0
Fort Pike	55.23	61.40	66.36	55.40	59.60	79	38	19.4	21.6	15	24	18	41	35	75
Fort Wood	57.20	62.40	68.12	59.54	61.81	80	42	18.2	19.8	40	41	1	1	35	37
New Orleans	62.36	65.00	68.56	64.16	65.02	80	55	15.0	10.0	26	34	22	24	28	31
Baton Rouge	54.27	64.10	75.14	60.20	63.43	86	36	22.6	27.4	3	6	25	53	56	124
Fort Jesup	48.70	55.36	66.93	55.16	56.54	84	24	27.5	32.5	33	36	19	25	3	3
Camp Salubrity	51.00	55.00	67.00	58.00	57.75	79	39	21.2	18.8	4	7	22	41	12	23
Fort Towson	47.33	51.00	63.26	51.06	53.16	82	26	28.8	27.2	18	33	18	20	22	29
Fort Washita	46.50	55.67	62.50	55.30	54.99	81	28	26.0	26.0	25	74	10	21	9	20
Fort Smith	40.60	48.40	59.50	46.10	48.65	80	20	31.3	28.7	5	14	8	20	37	99
Fort Gibson	44.96	48.16	59.06	49.45	50.41	80	23	29.6	27.4	23	35	19	31	6	6
Fort Scott	35.13	41.63	49.80	41.43	42.00	74	19	32.0	23.0	25	64	11	21	8	21
Jefferson Barracks	39.70	43.16	50.00	43.36	44.05	72	20	28.0	24.0	8	24	6	12	6	12
St. Louis Arsenal	35.56	42.60	53.73	45.93	44.45	74	19	29.5	25.5	6	7	22	20	20	20
Detroit Barracks	32.66	40.43	43.00	36.36	38.11	66	14	27.9	24.1	17	27	1	2	8	17
Fort Gratiot	32.43	35.73	42.33	34.46	36.24	62	18	25.8	18.2	0	0	9	26	5	12

MONTH OF NOVEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9. P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	18	15	18	8	14	27	69	29	64	2.96	2.33	1.93	1.93	2.29	5	25	4	11	3.86	
9	24	12	31	9	27	20	83	29	42	2.87	2.57	3.80	2.97	3.05	6	24	7	6	3.13	
4	9	4	7	15	30	25	51	38	104	4.53	4.26	4.46	4.33	4.39	13	17	6	1	4.25	
9	19	7	14	33	59	32	101	9	32	3.80	3.50	2.80	4.00	3.52	9	21	8	2	2.92	
3	7	6	14	10	19	25	63	42	123	4.66	4.16	4.16	3.96	4.23	11	19	7	3	2.99	
9	17	2	2	30	64	32	60	27	82	7.60	7.47	7.60	7.45	7.53	16	14	8	3	3.05	
1	4	10	20	8	19	21	65	13	48	3.96	5.00	4.10	4.83	4.47	14	16	11	1	3.31	
3	8	6	11	3	11	39	96	23	90	4.60	5.20	3.96	5.03	4.69	15	15	11	2	3.40	
4	9	1	3	5	18	29	73	37	137	4.13	4.70	3.20	5.37	4.35	12	18	9	1	1.73	
3	2	1	1	15	27	9	21	26	116	5.30	5.60	5.33	6.33	5.64	19	11	6	1	2.05	
10	14	8	8	11	14	8	27	61	133	3.76	3.53	3.43	5.71	4.10	13	17	3	1	1.05	
0	0	44	132	12	28	34	91	21	86	5.03	5.63	5.36	5.10	5.28	18	12	5	1	....	
1	2	12	36	10	18	32	79	30	78	1.26	1.36	1.63	0.90	1.53	0	30	5	3	2.40	
25	61	12	43	13	64	4	14	13	132	1.26	1.96	2.30	2.70	2.06	3	27	11	3	1.62	
23	26	15	22	31	49	6	19	26	110	1.60	2.40	2.30	2.90	2.30	6	24	7	2	1.02	
25	48	32	67	20	62	14	59	21	92	2.73	2.93	3.26	3.66	3.14	8	22	6	2	0.94	
2	4	6	18	48	149	22	81	22	64	2.63	3.00	2.73	2.86	2.80	9	21	10	1	2.16	
0	0	0	0	29	44	20	47	18	54	2.83	3.70	4.00	4.56	3.77	10	20	9	1	1.85	
8	8	3	5	0	0	39	34	33	47	4.16	3.63	4.36	6.40	4.63	14	16	9	0	3.99	
7	9	1	1	17	34	25	46	44	77	5.40	5.00	4.30	4.83	4.88	18	12	11	0	4.00	
22	25	5	5	15	24	27	49	30	72	4.20	4.27	4.21	5.11	4.44	17	13	8	0	1.85	
9	19	23	57	11	25	18	31	43	137	4.53	4.76	4.56	5.50	4.83	17	13	10	0	3.62	
8	9	1	1	25	52	15	32	35	93	4.00	4.43	4.76	5.50	4.67	12	18	11	0	3.74	
8	15	10	18	31	89	21	57	5	13	5.00	6.24	6.19	6.80	6.05	22	8	10	0	4.04	
10	11	8	10	33	43	17	28	24	35	4.63	4.66	5.06	5.06	4.85	15	15	5	0	1.88	
5	16	14	46	16	43	30	93	22	70	4.30	5.46	6.00	5.96	5.43	19	11	8	0	3.40	
0	0	29	39	4	5	26	29	0	0	4.50	4.50	5.20	5.86	5.01	17	13	8	0	2.78	
9	11	10	17	17	25	3	5	18	18	4.10	5.37	5.90	7.73	5.79	18	12	5	0	0.73	
19	43	24	72	0	0	1	2	1	2	6.56	6.70	6.96	7.90	7.03	25	5	4	0	0.44	
5	7	41	42	18	20	0	0	16	17	4.73	6.93	8.93	5.90	6.62	27	3	3	0	3.10	
9	27	8	41	15	45	11	31	13	34	3.06	3.20	3.90	5.13	3.32	11	19	11	0	11.57	
30	69	1	4	15	34	0	0	47	108	4.83	4.90	4.83	5.40	5.00	17	13	8	0	10 57	
12	21	1	2	8	8	5	10	26	65	4.16	5.13	5.90	6.16	5.33	15	15	9	0	7.14	
0	0	30	33	0	0	13	14	1	1	3.73	3.93	4.33	5.90	4.47	13	17	9	0	10.68	
14	14	2	4	2	2	7	8	5	5	2.46	3.06	3.26	4.00	3.20	10	20	11	0	7.78	
16	38	2	4	4	8	13	27	1	2	1.12	4.50	5.13	2.11	3.21	11	19	10	0	7.06	
11	15	31	33	6	11	0	0	17	24	4.13	4.36	5.93	6.93	5.33	12	18	8	0	3.87	
45	69	3	6	0	0	1	1	29	65	4.00	3.00	5.00	6.00	4.50	16	14	7	0	....	
26	40	6	13	4	5	4	6	22	37	3.30	4.10	5.56	6.76	4.93	13	17	5	0	1.73	
4	8	28	85	20	47	13	35	11	28	3.33	4.93	6.17	6.46	5.22	16	14	4	0	2.29	
3	11	16	44	6	21	28	72	16	46	6.75	7.00	6.80	7.60	7.04	22	8	4	0	0.91	
26	47	26	55	6	10	0	0	14	24	4.16	3.89	5.07	5.50	4.65	14	16	5	0	0.87	
0	0	22	59	27	57	24	52	3	3	3.33	3.96	5.33	6.53	4.74	16	14	5	0	1.52	
18	43	23	46	14	35	25	57	20	57	4.50	4.56	5.23	6.73	5.25	17	13	5	0	4.46	
19	30	9	10	15	18	16	23	13	15	6.03	6.73	7.50	6.76	6.80	22	8	3	1	0.50	
5	8	28	55	14	37	35	93	12	28	2.20	3.40	3.29	4.20	3.27	9	21	7	2	1.84	
40	112	8	25	23	63	14	47	21	64	3.20	2.70	2.26	3.36	2.88	7	23	10	2	2.43	

MONTH OF NOVEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Mackinac	33.60	34.63	36.40	34.63	34.81	48	6	13.2	28.8	18	49	9	40	7	31
Fort Brady	27.50	29.80	32.30	29.70	29.82	47	— 1	17.2	30.8	12	34	11	19	25	69
Fort Wilkins	28.20	30.73	31.30	27.93	29.54	52	9	22.5	20.5	9	31	20	38	3	6
Fort Winnebago	28.53	31.76	36.90	31.26	32.11	60	0	27.9	32.1	15	29	5	13	3	4
Fort Crawford	30.14	38.80	40.12	34.10	35.79	65	2	29.2	33.8	4	7	16	17	1	1
Fort Atkinson	28.93	31.90	36.86	31.13	32.23	58	— 1	25.8	33.2	31	60	13	28	5	13
Fort Snelling	24.80	26.00	34.03	27.56	28.10	59	— 4	20.9	32.1	6	15	6	6	5	8
Fort Des Moines	29.00	35.13	43.73	34.93	35.70	68	10	32.3	25.7	21	32	7	9	21	24
Fort Leavenworth	33.06	36.43	44.93	39.16	38.39	73	15	34.6	23.4	14	36	14	30	11	19

MONTH OF NOVEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	61	12	41	12	37	21	69	24	80	2.63	2.63	2.30	3.53	2.77	7	23	7	8	1.45	
21	39	7	8	16	39	11	46	17	59	1.46	1.66	1.83	2.83	1.87	3	27	2	14	3.50	
7	13	9	17	18	51	2	6	44	111	0.73	1.10	1.23	1.86	1.23	4	26	4	14	....	
10	39	5	29	13	45	17	51	20	60	3.06	2.93	3.36	3.73	3.27	10	20	4	6	1.56	
13	26	5	9	15	29	4	10	62	104	3.20	3.13	3.26	4.23	3.45	11	19	9	1	1.42	
18	49	1	2	9	31	15	40	28	73	2.70	2.40	3.20	3.40	2.92	8	22	4	3	0.86	
28	46	10	11	11	12	14	37	40	84	3.20	4.26	5.23	4.03	4.18	12	18	3	2	0.77	
5	4	16	19	6	10	28	30	16	25	3.86	4.00	5.63	6.20	4.87	12	18	1	2	0.32	
15	29	13	32	9	13	9	14	35	67	4.53	5.50	5.53	6.43	5.74	17	13	10	0	3.62	

MONTH OF DECEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	6.45	8.67	17.25	10.41	10.70	37	—16	26.3	26.7	31	49	10	11	5	5
Hancock Barracks	12.77	13.89	27.80	15.55	17.50	40	—11	12.0	28.0	18	47	16	44	11	28
Fort Sullivan	23.54	25.80	33.06	26.25	27.16	46	3	19.0	24.0	16	47	8	34	11	17
Fort Preble	23.50	24.80	29.80	26.90	26.25	45	6	19.0	20.0	39	134	10	45	0	0
Fort Constitution	27.29	28.12	33.09	29.35	29.46	41	11	12.0	28.0	15	35	21	55	3	3
Fort Adams	32.54	34.39	36.70	33.19	34.20	48	18	13.8	16.2	14	61	20	87	7	19
Fort Trumbull	25.96	29.03	34.16	27.64	29.20	51	6	21.8	23.2	19	56	20	85	3	6
Fort Columbus	31.97	33.45	37.87	33.68	33.97	48	19	14.0	15.0	3	4	33	81	6	18
Fort Hamilton	31.61	32.51	37.96	33.96	34.00	51	19	17.0	15.0	4	14	32	72	14	25
West Point	26.03	30.36	33.90	29.96	30.06	55	10	25.0	20.0	7	19	5	8	2	3
Watervliet Arsenal	23.68	31.26	36.32	30.84	30.52	46	4	15.5	26.5	1	3	1	2	0	0
Plattsburg Barracks	15.22	17.29	23.61	19.67	18.95	42	0	23.0	19.0	42	95	8	25	8	20
Madison Barracks	22.35	26.48	26.83	24.35	25.00	47	— 4	22.0	29.0	3	6	33	93	3	7
Fort Ontario	25.70	27.80	29.70	27.20	27.60	46	9	18.4	18.6	8	14	26	59	7	11
Fort Niagara	30.54	32.38	33.32	30.70	31.74	49	15	17.3	16.7	3	15	4	15	3	10
Buffalo Barracks	28.16	30.16	32.87	29.16	30.09	44	10	14.0	20.0	12	35	7	17	10	27
Alleghany Arsenal	28.67	30.70	37.03	31.12	31.88	58	17	26.1	14.9	10	16	23	20	4	4
Carlisle Barracks	29.83	32.41	36.35	33.12	32.93	56	21	23.0	12.0	4	4	0	0	8	8
Fort Mifflin	29.42	33.61	39.13	33.03	33.55	48	18	14.4	15.6	3	9	18	42	6	13
Fort McHenry	30.26	32.28	38.30	32.26	33.25	49	19	15.8	14.2	18	26	18	20	5	5
Fort Severn	34.58	36.87	42.00	36.41	37.46	57	20	19.5	17.5	10	42	6	26	0	0
Fort Monroe	38.71	40.09	46.77	41.77	41.84	69	22	27.0	20.0	2	4	21	65	10	20
Fort Johnston	43.23	48.25	53.23	48.20	48.50	71	22	22.5	26.5	12	45	13	45	13	34
Augusta Arsenal	43.16	47.00	54.45	49.06	48.42	66	24	17.6	24.4	7	7	15	17	5	5
Fort Moultrie	48.27	53.56	56.58	52.62	52.76	62	29	9.3	23.7	14	49	19	54	3	9
Oglethorpe Barracks	41.56	48.22	58.64	48.30	49.18	72	28	22.8	21.2	19	28	0	0	19	22
Fort Marion	49.42	59.19	62.94	52.58	56.03	78	32	22.0	24.0	16	40	16	40	3	5
Key West	65.84	71.71	73.13	66.26	69.23	82	51	12.8	18.2	65	223	18	46	16	32
Fort Brooke	52.06	56.87	63.51	59.96	58.10	78	33	20.0	25.0	17	21	55	45	6	7
Camp Barrancas	46.06	52.32	60.06	51.29	52.43	72	28	19.6	24.4	32	65	20	54	9	34
Mount Vernon Arsenal.	41.00	46.93	55.42	46.26	47.40	72	24	24.6	23.4	17	28	15	47	0	0
Fort Pike	47.09	52.61	59.61	51.35	52.66	76	28	23.3	25.7	15	34	11	20	14	31
Fort Wood	46.10	54.13	62.10	51.36	53.42	76	30	22.6	24.4	38	38	0	0	19	19
New Orleans	51.32	56.10	62.48	58.84	57.18	75	33	17.8	24.2	28	34	3	3	20	22
Baton Rouge	44.10	53.10	66.15	50.40	50.94	78	27	27.0	24.0	13	29	29	69	51	105
Fort Jesup	41.06	47.03	59.16	46.48	48.43	70	19	21.6	29.4	40	49	8	19	0	0
Camp Salubrity	42.00	48.00	59.00	50.00	49.75	75	24	25.2	25.8	3	7	2	6	0	0
Fort Towson	32.87	39.22	55.12	42.12	42.33	78	16	25.6	26.4	29	55	4	7	11	17
Fort Washita	36.81	43.93	57.19	45.71	45.91	76	21	30.0	25.0	22	44	1	3	5	10
Fort Smith	28.16	35.51	51.32	36.77	37.94	72	12	34.1	25.9	3	3	8	13	17	40
Fort Gibson	34.42	38.19	52.65	41.65	41.73	73	11	31.3	29.7	26	28	25	33	4	4
Fort Scott	28.87	33.48	45.03	33.93	35.25	69	10	33.7	25.3	20	54	2	4	0	0
Jefferson Barracks	30.41	34.80	46.32	34.54	36.52	69	10	32.5	26.5	12	28	3	5	4	8
St. Louis Arsenal	29.00	34.41	42.58	39.74	36.43	60	12	23.6	24.4	17	18	11	12	13	15
Detroit Barracks	25.77	30.74	33.87	29.74	30.03	46	14	16.0	16.0	29	51	1	3	9	23
Fort Gratiot	27.76	28.74	33.80	28.87	29.79	47	16	17.2	13.8	0	0	6	7	3	8
Fort Mackinac	22.87	23.74	26.54	24.61	24.44	36	12	11.6	12.4	9	34	10	39	1	2

MONTH OF DECEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
6	7	18	24	11	16	38	78	12	29	4.67	4.19	3.51	6.29	4.67	18	13	2	11	3.36	
3	9	12	27	15	43	39	140	10	31	3.45	3.74	3.48	3.68	3.58	10	21	4	8	3.43	
7	28	6	23	14	36	25	80	37	47	3.96	4.00	4.19	5.25	4.35	15	16	6	8	7.06	
2	6	6	12	30	54	28	96	9	30	3.90	3.60	3.50	4.50	3.87	12	19	9	5	4.10	
0	0	13	25	14	33	28	76	30	92	4.22	4.16	3.90	4.74	4.25	13	17	4	3	5.55	
11	24	3	9	10	21	27	91	32	123	3.35	3.70	3.61	4.25	3.75	12	19	9	2	2.98	
4	11	7	17	12	30	34	83	25	70	3.74	3.93	3.64	5.00	4.07	13	18	10	3	2.23	
6	11	0	0	9	23	14	28	53	172	4.45	4.07	4.29	3.74	4.13	15	16	6	2	2.82	
7	12	0	0	16	36	21	74	30	113	5.09	4.70	4.16	5.36	4.82	17	14	7	2	2.05	
3	3	6	6	17	18	29	29	55	91	3.58	3.70	3.09	3.96	3.57	9	22	4	2	4.12	
1	2	32	87	4	12	50	121	35	89	3.61	4.35	4.77	3.90	4.15	11	20	6	0	....	
3	9	26	80	3	7	23	56	11	27	1.74	1.96	2.58	1.22	1.87	0	31	8	3	1.52	
23	69	6	34	12	55	0	0	44	161	1.74	1.96	2.03	1.64	1.84	3	28	3	1	1.70	
31	36	8	12	13	14	6	21	25	59	2.40	1.90	2.30	2.40	2.25	5	26	8	4	3.71	
28	64	33	97	16	60	9	43	28	124	1.45	2.38	2.54	2.32	2.17	5	26	11	4	1.63	Therm. protected
15	35	11	34	32	114	20	58	17	48	1.90	2.64	1.80	2.25	2.14	2	29	10	8	2.20	
9	10	10	10	22	56	22	60	24	86	2.93	2.67	2.32	3.51	2.85	7	24	7	3	1.50	
16	16	8	8	1	1	66	91	21	36	4.35	4.80	5.54	6.58	5.31	19	12	3	2	2.50	
7	12	0	0	27	51	18	42	45	91	3.84	4.51	4.22	4.51	4.27	14	17	7	1	2.90	
10	14	6	6	18	29	25	50	27	63	3.27	4.20	4.15	5.23	4.21	15	16	9	1	3.50	
6	19	27	53	29	65	20	60	26	85	4.64	4.45	4.64	6.19	4.98	17	14	3	4	3.37	
7	12	4	5	23	45	24	69	33	78	5.00	4.58	4.80	6.22	5.17	18	13	8	1	3.77	
3	6	13	23	30	127	22	92	18	70	4.22	5.21	5.13	5.27	4.95	23	8	4	1	2.95	
11	11	5	5	24	33	25	56	32	74	6.25	6.29	6.38	6.48	6.20	22	9	5	0	1.76	
3	4	8	27	22	75	32	117	23	86	5.77	6.12	5.67	7.06	6.15	22	9	5	0	1.45	
0	0	19	33	2	2	65	96	0	0	5.80	5.64	6.45	7.41	6.33	19	12	5	0	2.90	
3	4	12	24	5	10	28	70	41	96	5.38	6.81	6.97	8.00	6.79	23	8	4	0	1.55	
2	2	6	9	5	7	5	11	6	11	5.51	6.58	6.80	7.64	6.63	25	6	4	0	1.28	
0	0	20	20	1	1	7	9	18	18	5.13	6.51	8.93	5.45	6.50	26	5	4	0	2.90	
4	15	4	12	10	35	20	42	25	75	5.09	5.29	5.35	6.41	5.53	18	13	5	0	2.09	
26	74	5	15	14	29	8	18	39	101	5.90	5.61	6.10	6.32	5.98	18	13	7	0	2.54	
19	43	13	23	9	16	15	37	28	84	7.54	7.32	7.58	7.74	7.54	23	8	7	0	3.25	
0	0	26	30	5	14	31	32	5	6	6.19	5.96	6.51	6.93	6.39	20	11	5	0	1.88	
5	7	14	18	13	13	20	26	10	14	5.19	6.55	6.77	7.09	6.40	21	10	4	0	1.35	
4	8	4	7	3	6	17	39	3	7	2.10	6.22	7.27	2.17	4.44	21	10	4	0	2.20	
2	2	35	55	5	12	13	23	21	25	5.83	6.00	6.61	6.73	6.29	19	12	2	0	2.54	
42	120	7	19	23	54	3	11	46	139	6.00	5.75	5.50	7.00	6.32	20	11	3	0	....	
22	32	7	19	11	20	5	6	35	82	5.96	6.77	7.16	8.51	7.10	25	6	0	2	1.05	
8	20	18	43	16	40	29	64	25	59	7.26	7.29	7.97	7.97	7.62	26	5	0	2	0.17	
0	0	12	31	19	35	49	119	11	39	8.58	9.22	8.51	8.38	8.67	28	3	1	1	0.30	
22	34	17	33	18	22	7	10	5	8	8.29	7.96	7.06	8.00	7.82	26	5	0	1	0.08	
4	9	29	107	24	67	34	81	11	23	4.25	5.06	5.67	8.48	5.86	24	7	0	1	0.70	
3	6	26	55	37	78	12	38	27	65	3.00	3.87	5.06	7.00	4.73	14	17	4	1	1.19	
16	15	12	12	13	20	21	80	21	60	5.41	6.67	7.06	4.70	5.98	21	10	3	1	2.33	
4	6	27	66	3	12	45	114	6	16	1.87	2.32	3.09	3.09	3.60	9	22	2	1	0.95	
36	106	15	44	28	96	10	33	26	89	1.54	1.83	2.09	3.35	2.23	4	27	8	5	1.39	
24	71	13	37	15	50	34	96	18	53	1.67	1.80	2.67	2.93	2.26	3	28	3	12	1.19	

MONTH OF DECEMBER, 1844.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	18.32	20.29	23.61	21.45	20.91	34	— 2	13.0	23.0	16	44	9	21	24	63
Fort Wilkins	20.93	22.45	25.09	22.22	22.67	42	6	19.3	16.7	10	36	7	20	2	4
Fort Winnebago	15.90	19.80	27.12	20.67	20.87	45	— 5	24.1	25.9	6	24	6	24	3	9
Fort Crawford	15.29	18.22	27.20	21.17	20.47	44	— 6	23.5	27.5	11	14	18	18	0	0
Fort Atkinson	14.54	18.03	24.87	17.61	18.76	39	— 4	20.2	22.8	37	114	7	20	6	18
Fort Snelling	13.06	15.12	23.29	16.74	17.05	42	— 8	25.0	25.0	6	19	8	17	7	8
Fort Des Moines	20.83	25.35	35.93	25.51	26.90	48	— 4	21.0	31.0	25	50	4	5	36	38
Fort Leavenworth	27.22	30.06	39.70	31.73	32.18	58	9	25.8	21.2	2	2	7	9	1	2

MONTH OF DECEMBER, 1844.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
30	66	6	6	8	20	13	43	19	58	1.67	2.64	2.83	2.64	2.44	2	29	2	14	2.49	
6	13	20	36	18	41	6	15	50	173	0.41	0.96	1.48	1.83	1.17	2	29	1	13	....	
9	29	10	32	9	19	32	90	11	36	4.12	4.32	4.16	3.80	4.10	12	19	2	5	1.75	
25	38	6	6	18	23	0	0	46	85	4.21	5.14	5.10	5.25	4.92	18	13	4	6	2.38	
14	38	15	36	11	22	3	7	31	87	4.45	4.87	4.35	6.26	4.98	18	13	4	2	1.11	
40	52	7	8	19	20	4	4	33	43	4.29	5.70	5.70	5.12	5.20	20	11	4	2	0.58	
0	0	6	10	4	7	41	56	8	13	5.48	5.45	5.58	6.18	5.74	21	10	2	2	2.25	
24	45	14	25	12	26	3	4	61	125	6.12	5.93	6.06	7.16	6.30	21	10	0	2	0.39	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Kent...........	47 15	68 35	575	......	......	......	......	46.84	59.19	59.08	59.68	53.47
Hancock Barracks. ..	46 07	67 49	620	6.45	18.07	25.62	41.63	48.90	60.37	60.66	61.75	55.48
Fort Sullivan	44 54	66 58	70	16.17	25.61	33.40	45.48	50.33	58.01	59.19	60.57	58.75
Fort Preble..........	43 39	70 20	20	14.36	21.82	31.03	43.00	51.25	60.75	63.00	62.75	58.00
Fort Constitution	43 04	70 49	40	17.85	25.32	34.17	45.40	53.39	61.91	64.56	63.79	59.73
Watertown Arsenal..	42 21	72 17	100?	16.94	24.56	34.16	49.32	57.48	63.90	67.92	67.53	59.68
Fort Adams..........	41 30	71 19	40	23.79	29.02	35.62	47.59	57.56	66.80	71.00	71.11	63.48
Fort Trumbull.......	41 22	72 05	50	20.92	27.23	35.28	48.80	57.00	63.95	68.44	68.40	61.47
Fort Columbus	40 42	74 01	23	25.76	29.74	38.79	53.55	63.29	69.22	74.54	72.93	65.79
Fort Hamilton.......	40 37	74 02	25	26.29	29.82	38.04	51.51	61.50	66.87	71.39	71.82	66.07
West Point..........	41 23	74 00	167	19.10	26.03	36.00	53.04	61.69	67.42	71.37	68.99	62.40
Watervliet Arsenal..	42 50	73 55	50	14.15	24.03	35.29	53.44	60.72	65.13	68.17	71.87	61.82
Plattsburg Barracks..	44 41	73 30	186	10.33	19.68	30.29	47.74	55.04	61.01	66.30	64.90	58.57
Madison Barracks....	43 57	76 15	262	12.74	20.99	30.60	48.94	56.00	62.13	66.90	66.15	60.63
Fort Ontario	43 20	76 40	250	17.40	24.95	33.35	49.65	57.57	61.72	68.57	65.82	61.07
Fort Niagara........	43 18	79 08	250	22.17	28.70	33.78	48.28	57.24	61.66	67.20	65.30	61.35
Buffalo Barracks.....	42.53	78 58	660	22.40	27.38	33.19	50.88	56.48	65.30	69.33	66.72	61.34
Alleghany Arsenal...	40 32	80 12	704	25.48	31.35	40.75	59.52	62.52	68.17	73.12	68.97	62.19
Carlisle Barracks.....	40 12	77 14	?	25.07	31.26	41.00	59.06	65.88	70.09	77.01	73.10	66.65
Fort Mifflin..........	39 51	75 15	40	28.28	32.03	42.54	54.51	65.79	69.98	74.53	72.55	65.52
Fort McHenry.......	39 18	76 33	36	29.22	32.10	41.93	55.88	66.46	69.34	77.36	74.10	66.62
Fort Severn.........	38 58	76 27	20	30.35	32.85	43.03	56.20	69.00	72.04	77.99	75.45	69.09
Fort Monroe........	37 00	76 15	20	35.03	37.92	48.73	59.32	72.24	74.91	78.67	74.13	71.62
Fort Macon..........	34 40	76 45	20	44.08	43.53	51.91	62.00	71.60	74.12	78.85	77.51	71.66
Fort Johnston........	34 00	78 05	20	43.57	45.69	54.34	64.64	76.90	77.77	82.46	79.18	75.33
Augusta Arsenal.....	33 28	81 53	600?	44.78	51.20	56.09	69.15	77.43	77.04	81.49	79.42	74.43
Fort Moultrie	32 42	79 56	20	50.08	51.71	58.12	66.95	75.98	79.85	83.29	81.53	75.15
Oglethorpe Barracks..	32 05	81 07	40	49.00	52.93	57.30	68.53	78.92	79.89	81.74	79.83	74.42
Fort Marion.........	29 50	81 30	12	57.02	57.21	61.82	69.51	74.15	77.72	80.96	79.33	76.93
Key West...........	24 20	81 49	20	......	68.70	70.96	75.00	78.93	81.34	83.64	83.94	83.50
Fort Brooke.........	28 00	82 28	20	61.02	60.20	63.53	70.70	77.87	76.66	80.63	78.67	77.35
Camp Barrancas......	30 18	87 27	20	56.27	57.41	60.90	69.62	78.44	80.43	83.64	80.75	77.95
Mt. Vernon Arsenal..	31 12	88 20	75	......	......	......	......	77.51	78.42	81.17	78.16	73.97
Pass Christian.......	30 20	89 25	20	......	......	......	......	......	......	82.92	81.80	78.68
Fort Pike............	30 10	89 38	20	56.20	57.55	61.58	72.11	81.10	81.47	85.06	82.29	78.33
Fort Wood..........	30 08	89 51	20	57.60	58.36	61.62	72.12	79.92	81.59	84.26	82.03	79.07
New Orleans Barracks	29 57	90 00	20	58.54	59.28	63.55	72.52	78.46	79.80	......	......	......
Baton Rouge........	30 26	91 18	41	57.35	59.49	61.77	71.91	77.10	78.75	81.84	80.24	75.41
Fort Jesup..........	31 33	93 32	80?	52.82	53.88	57.51	70.66	76.57	79.18	83.20	80.94	73.68
Camp Salubrity	31 40	93 15	80?	......	......	......	......	......	......	85.75	80.59	75.51
Fort Towson........	34 00	95 33	150?	44.40	49.22	51.73	68.36	72.53	77.91	82.80	80.75	71.97
Fort Washita........	34 15	96 55	200?	45.02	51.16	53.44	68.27	73.41	77.13	82.39	82.54	71.20
Fort Smith..........	35 23	94 29	460	38.24	45.77	48.12	66.58	71.15	76.71	81.13	76.82	68.06
Fort Gibson.........	35 47	95 10	542	40.67	47.31	50.45	66.30	69.89	75.77	80.00	77.40	68.67
Fort Scott...........	37 45	94 35	1000?	30.55	36.70	45.34	63.27	64.36	72.07	80.27	74.24	62.85
Jefferson Barracks....	38 28	90 15	382	31.32	37.72	44.03	62.91	65.20	70.87	77.58	73.78	64.99
St. Louis Arsenal....	38 40	90 05	450	31.44	36.57	42.11	64.83	66.28	75.29	81.63	74.84	66.75
Detroit Barracks.....	42 20	82 58	580	23.43	29.37	34.90	54.57	58.49	63.98	70.73	66.67	62.25

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1844.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.*
39.82	26.59	10.70	......	59.65	39.96	......	......	90	—16	....	....	Maine.
42.74	28.72	17.50	38.72	60.93	42.31	14.01	38.99	86	—22	47.0	61.0	Maine.
49.08	36.89	27.16	43.07	59.26	48.24	22.98	43.39	82	—10	38.6	53.4	Maine.
47.25	35.90	26.25	41.76	62.17	47.05	20.81	42.95	84	—13	41.0	56.0	Maine.
48.68	38.26	29.46	44.32	63.42	48.89	34.21	47.71	88	— 6	40.3	53.7	New Hampshire.
48.40	36.30	......	46.99	66.45	48.13	......	......	92	— 8	....	....	Massachusetts.
53.63	42.73	34.20	46.92	69.64	53.28	29.00	49.71	88	3	38.3	46.7	Rhode Island.
50.18	39.59	29.20	47.03	66.93	50.41	25.78	47.54	90	— 3	42.5	50.5	Connecticut.
53.52	43.33	33.97	51.88	72.23	54.21	29.82	52.03	92	3	40.0	49.0	New York.
53.10	43.42	34.00	50.35	70.03	54.20	30.04	51.15	86	0	34.8	51.2	New York.
49.81	39.27	30.06	50.24	69.26	50.49	25.06	48.76	88	— 4	39.2	52.8	New York.
46.71	35.31	30.52	49.82	68.39	47.95	22.90	47.26	89	—22	41.7	69.3	New York.
42.89	29.19	18.95	44.36	64.07	43.55	16.32	42.07	87	—18	44.9	60.1	New York.
44.69	33.79	25.00	45.18	65.06	46.37	19.91	44.13	86	— 6	41.9	50.1	New York.
45.00	35.85	27.60	46.86	65.37	47.31	23.32	45.71	88	— 7	42.3	52.7	New York.
45.84	38.40	31.74	46.43	64.72	48.53	27.54	46.80	82	2	35.2	44.8	New York.
45.46	36.78	30.09	46.85	67.12	47.86	26.62	47.11	87	1	39.9	46.1	New York.
47.15	38.59	31.88	54.26	70.09	49.31	29.57	50.81	92	0	41.2	50.8	Pennsylvania.
54.36	41.61	32.93	55.31	73.40	54.21	29.75	53.17	90	0	36.8	53.2	Pennsylvania.
52.41	42.59	33.55	54.28	72.35	53.51	31.29	52.86	92	6	39.1	46.9	Pennsylvania.
52.88	41.08	33.25	54.76	73.60	53.53	31.52	53.35	94	5	40.6	48.4	Maryland.
55.91	46.34	37.46	56.08	75.16	57.11	33.55	55.47	93	8	37.5	47.5	Maryland.
60.56	52.46	41.84	60.10	75.90	61.55	38.28	58.96	95	13	36.0	46.0	Virginia.
61.97	......	......	61.84	76.83	......	......	......	84	19	....	....	North Carolina.
63.61	59.77	48.50	65.29	79.80	66.24	45.92	64.31	93	20	28.7	44.3	North Carolina.
63.94	57.14	48.42	67.56	79.32	65.17	48.13	65.04	96	16	31.0	49.0	Georgia.
66.60	61.92	52.76	67.02	81.56	67.89	51.42	67.00	94	24	27.0	43.0	South Carolina.
64.07	60.00	49.18	68.25	80.48	66.16	50.37	66.31	98	22	31.7	44.3	Georgia.
70.92	67.33	56.03	68.49	79.34	71.73	56.75	69.08	88	25	18.9	44.1	Florida.
78.80	77.29	69.23	74.96	82.97	79.86	......	......	94	51	....	....	Florida.
72.24	69.64	58.10	74.03	78.65	73.08	59.77	71.38	90	32	18.6	29.4	Florida.
68.76	63.11	52.43	69.65	81.61	69.94	55.37	69.14	92	28	22.9	4.11	Florida.
62.65	57.07	47.40	......	79.25	64.56	......	......	98	24	....	....	Alabama.
68.45	......	......	......	......	......	......	......	97	....	....	....	Mississippi.
67.07	59.60	52.66	71.60	82.94	68.33	55.47	69.58	98	28	24.4	4.16	Louisiana.
68.20	61.81	53.42	71.22	82.63	69.69	56.46	70.00	98	30	28.0	40.0	Louisiana.
......	65.02	57.18	71.51	......	......	58.33	......	..	33	....	....	Louisiana.
66.28	63.43	50.94	70.26	80.28	68.37	55.93	68.71	93	27	24.3	41.7	Louisiana.
60.93	56.54	48.43	68.25	81.11	63.72	51.71	66.20	100	19	33.8	47.2	Louisiana.
65.25	57.75	49.75	......	......	66.17	......	......	99	24	....	....	Near Nachitoches, Louisiana.
59.64	53.16	42.33	64.21	80.49	61.59	45.32	62.90	101	16	38.1	46.9	Indian Territory.
60.64	54.99	45.91	65.04	80.69	62.28	47.36	63.84	102	21	38.2	42.8	Indian Territory.
56.20	48.65	37.94	61.95	78.22	57.64	40.65	59.61	98	12	38.4	47.6	Arkansas.
57.91	50.41	41.73	62.21	77.72	59.00	43.24	60.54	94	11	33.5	49.5	Indian Territory.
51.84	42.00	35.25	57.66	75.53	52.23	34.17	54.90	96	8	41.1	46.9	Missouri.
52.78	44.05	36.52	57.38	77.78	53.94	35.19	56.07	86	10	29.9	46.1	Missouri.
51.04	44.45	36.43	57.74	77.25	54.08	34.81	55.97	98	8	42.0	48.0	Missouri.
47.27	38.11	30.03	49.32	67.13	49.21	27.61	48.32	86	12	37.7	36.3	Michigan.

* See summary for 1843 for precise locality of other than new posts.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Gratiot........	42 55	82 23	598	22.57	28.82	33.62	53.40	58.18	60.97	66.82	65.25	60.43
Fort Mackinac	45 51	84 38	728	16.23	23.61	26.29	42.42	48.80	54.10	63.64	62.64	55.52
Fort Brady..........	46 30	84 43	600	10.51	20.42	23.77	42.67	47.95	53.39	61.06	60.17	53.35
Fort Wilkins........	47 30	88 00	620	......	......	......	......	......	56.78	63.30	63.10	55.82
Fort Winnebago.....	43 31	89 28	770?	16.57	24.47	35.02	55.17	......	63.21	71.10	66.43	59.10
Fort Crawford.......	43 05	91 00	642	17.25	24.70	37.68	57.24	60.68	66.12	74.19	70.00	60.43
Fort Atkinson........	43 00	91 00	700?	14.32	23.61	35.01	55.39	57.32	64.10	73.39	67.40	58.36
Fort Snelling........	44 53	93 10	820	9.41	22.33	32.94	51.45	55.08	62.64	69.82	65.61	55.57
Fort Des Moines......	41 32	93 38	780?	21.08	33 97	38.88	59.24	59.33	64.88	76.46	71.61	59.36
Fort Leavenworth....	39 18	94 55	896	25.88	33.66	40.19	63.46	62.04	68.75	77.47	73.91	63.44

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1844.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
45.56	36.24	29.79	48.40	64.35	47.41	26.39	46.64	90	— 8	43.4	54.6	Michigan.
43.46	34.81	24.44	39.17	60.13	44.60	21.43	41.33	80	—13	38.7	54.3	Michigan.
39.85	29.82	20.91	38.13	58.21	41.01	17.28	38.66	81	—34	42.3	72.7	Michigan. [Mich.
41.64	29.54	22.67	......	61.06	42.00	......	......	90	+ 6*	....	....	Copper Harbor, Lake Superior,
43.69	32.11	20.87	......	66.91	44.93	20.64	......	88	— 8	....	....	Wisconsin.
46.74	35.79	20.47	51.87	70.10	47.65	20.81	47.61	91	— 6	43.4	53.6	Wisconsin.
43.25	32.23	18.76	49.24	68.30	44.61	18.89	45.26	89	—12	43.7	57.3	Iowa.
41.45	28.10	17.05	46.49	66.02	41.71	16.26	42.62	87	—18	44.4	60.6	Minnesota.
45.86	35.70	26.90	52.48	70.98	46.97	27.32	49.44	96	— 4	46.6	53.4	Iowa.
51.46	38.39	32.18	55.23	73.38	51.10	30.57	52.57	91	0	38.4	52.6	Missouri, (Kansas.)

* In December, other minima in January.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1844.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Kent	....	....	....	....	....	....	....	....	1.36	4.41	3.86	3.36	....	....	9.64	....	....
Hancock Barracks	2.80	0.79	1.66	1.57	2.87	2.73	3.55	1.80	1.85	4.62	3.13	3.43	6.10	8.08	9 60	7.02	30.80
Fort Sullivan	1.95	1.65	2.75	0.70	3.65	0.82	5.34	4.48	2.35	2.54	4.25	7.06	7.10	10.64	9.14	10.66	37.54
Fort Preble	3.43	0.75	3.59	0.34	3.74	3.34	1.76	2.27	1.76	4.66	2.92	4.10	7.67	7.37	9.34	8.28	32.66
Fort Constitution	2.83	1.43	3.60	0.35	2.75	1.45	1.36	2.23	2.57	4.54	2.99	5.55	6.70	5.04	9.00	9.81	30.55
Watertown Arsenal	3.51	1.64	4.78	0.38	3.67	1.69	2.79	3.30	4.72	5.86	3.05	....	8.83	7.78	13.63	*5.15	*35.39
Fort Adams	5.85	1.24	3.17	1.49	5.21	1.77	5.78	4.72	5.25	8.30	3.31	2.98	9.87	12.27	16.86	10.07	49.07
Fort Trumbull	5.92	1.81	6.01	1.19	3.47	1.94	3.81	2.72	2.40	5.39	3.40	2.23	10.67	8.47	11.19	9.96	40.29
Fort Columbus	2.66	1.03	4.50	0.55	3.41	2.37	6.00	2.73	4.50	4.08	1.73	2.82	8.46	11.10	10.31	6.51	36 38
Fort Hamilton	2.97	0.93	4.33	0.52	2.80	2.32	4.87	1.72	4.30	3.78	2.05	2.05	7.65	8.91	10.13	5.95	32.64
West Point	5.25	3.10	4.20	0.50	5.10	3.45	7.90	5.28	3.50	4.92	1.05	4.12	9.80	16.63	9.47	12.47	48.37
Plattsburg Barracks	0.84	0.54	2.44	2.61	5.40	4.41	4.78	6.46	3.35	4.53	2.40	1.52	10.45	15.65	10.28	2.90	39.28
Madison Barracks	2.74	0.85	1.91	1.79	3.37	3.74	3.78	3.80	0.41	3.52	1.62	1.70	7.07	11.32	5.55	5.29	29.23
Fort Ontario	1.43	0.19	1.54	1.40	3.74	8.20	1.42	6.50	0.54	4.89	1.02	3.71	6.68	16.12	6.45	5.33	34.58
Fort Niagara	1.80	0.53	1.52	0.84	2.74	2.59	2.28	2.26	0.26	1.47	0.94	1.63	5.10	7.13	2.67	3.26	18.86
Buffalo Barracks	2.40	0.64	3.06	1.55	5.05	3.50	4.77	5.34	0.22	3.90	2.16	2.20	9.66	13.61	6.28	5.24	34.79
Alleghany Arsenal	2.20	0.93	3.04	1.79	4.89	4.02	2.44	4.47	2.57	2.85	1.85	1.50	9.72	10.93	7.27	4.63	32.55
Carlisle Barracks	....	....	6.00	4.28	6.40	8.49	7.41	5.11	4.35	6.03	3.99	2.50	16.68	20.91	14.37	....	....
Fort Mifflin	5.60	2.00	4.15	2.15	3.82	4.90	4.20	2.80	4.30	6.00	4.00	2.90	10.12	11.90	14.30	10.50	46.82
Fort McHenry	3.65	1.45	3.00	1.60	4.00	1.70	3.90	0.31	4.47	3.03	1.85	3.50	8.60	5.91	9.35	8.60	32.46
Fort Severn	4.22	0.94	3.55	1.08	4.69	3.91	2.96	1.67	6.47	4.28	3.62	3.37	9.32	8.54	14.37	8.53	40.76
Fort Monroe	3.40	1.50	4.50	1.41	2.92	4.85	3.58	5.00	4.76	2.25	3.74	3.77	8.83	13.43	10.75	8.67	41.68
Fort Macon	6.90	3.50	3.25	1.30	2.43	3.05	4.10	3.55	11.25	2.55	....	....	6.98	10.70	....	....	....
Fort Johnston	3.40	1.50	4.00	0.70	1.57	3.28	8.43	7.90	9.86	2.42	4.04	2.95	6.27	19.61	16.32	7.85	50.05
Augusta Arsenal	....	....	....	....	0.57	1.41	1.24	0.53	2.34	0.27	1.88	1.76	....	3.18	4.49	....	....
Fort Moultrie	2.66	1.69	4.07	1.20	1.87	1.51	4.85	4.32	6.05	0.91	3.40	1.45	7.14	10.68	10.36	5.80	33.98
Oglethorpe Barracks	3.61	1.10	8.77	3.07	2.47	8.19	13.92	4.10	6.08	0.57	2.78	2.90	14.31	26.21	9.43	7.61	57.56
Fort Marion	1.94	1.00	4.71	1.26	2.97	2.18	3.27	2.68	7.13	0.49	0.73	1.55	8.94	8.13	8.35	4.49	29.91
Key West	....	1.23	0.13	0.05	1.36	7.13	1.26	2.63	8.50	14.07	0.44	1.28	1.54	11.02	23.01	*2.51	*38.08
Fort Brooke	1.10	3.30	1.80	0.10	5.50	4.70	7.70	15.77	3.50	2.20	3.10	2.90	7.40	28.17	8.80	7.30	51.67
Camp Barrancas	5.76	0.91	7.78	1.98	5.52	5.11	7.67	6.59	2.61	1.99	11.57	2.09	15.28	19.37	16.17	8.76	59.58
Mount Vernon Arsenal	....	....	....	....	5.92	9.38	5.03	8.29	0.98	2.90	10.57	2.54	....	22.70	14.45	....	....
Fort Pike	4.03	0.80	3.50	0.86	9.52	1.18	5.76	3.31	1.61	3.30	7.14	3.25	13.88	10.25	12.05	8.08	44.26
Fort Wood	4.85	0.41	3.48	0.39	5.31	1.89	4.28	8.11	1.50	4.06	10.68	1.88	9.18	14.28	16.24	7.14	46.84
Pass Christian	....	....	....	....	....	....	7.99	4.61	0.22	1.54	....	....	....	....	...	....	....
New Orleans Barracks	4,41	0.73	3.90	0.53	3.16	2.75	....	....	....	....	7.78	1.35	7.59	*15.35	*9.54	6.49	*38.97
Baton Rouge	5.40	....	3.10	0.50	3.30	3.50	3.70	5.60	1.10	3.60	7.06	2.20	6.90	12.80	11.76	*7.60	*39.06
Fort Jesup	4.10	1.20	5.30	6.60	3.05	5.11	1.77	2.24	2.83	2.81	3.87	2.54	14.95	9.12	9 51	7.84	41.42
Fort Towson	3.45	2.08	4.56	10.38	3.25	2.66	5.35	7.96	1.30	2.77	1.73	1.05	18.19	15.97	5.80	6.58	46.54
Fort Washita	1.77	2.87	4.35	5.05	4.59	4.43	2.76	1.67	2.25	3.80	2.29	0.17	13.99	8.86	8.34	4.81	36.00
Fort Smith	1.30	3.53	2.41	14.28	3.12	1.10	1.37	0.52	2.08	2.01	0.91	0.30	19.81	2.99	5.00	5.13	32.93
Fort Gibson	0.76	6.07	1.91	9.62	8.46	3.15	0.64	1.98	0.76	3.28	0.87	0.08	19.99	5.77	4.91	6.91	37.58
Fort Scott	2.05	1.30	3.78	6.91	14.79	12.64	10.50	2.51	3.33	2.49	1.52	0.78	25.48	25.65	7.34	4.13	62.60
Jefferson Barracks	2.19	2.33	2.50	3.13	7.27	5.40	5.23	0.71	1.80	1.06	0.46	1.19	12.90	11.34	3.32	5.71	33.27
St. Louis Arsenal	4.88	3.76	3.22	5.57	11.03	7.54	8.10	1.47	0.03	2.68	0.50	2.33	19.82	17.11	3.21	10.97	51.11

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1844.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Detroit Barracks	2.25	0.61	2.60	3.35	5.68	5.18	4.49	3,27	1.03	1.85	1,84	0.95	11.63	12.94	4.72	3.81	33.10
Fort Gratiot	2.73	1.75	2.77	0.99	5.05	3.95	3.63	4.99	1.38	2.68	2,43	1.39	8.81	12.57	6.49	5.87	33.74
Fort Mackinac	....	....	....	....	....	....	...	....	....	....	1.45	1.19	....	....	....	....	....
Fort Brady	1.96	0.43	1.66	3.07	2.87	4.26	2.24	4.98	4.81	2.18	3 50	2,49	7.60	11.48	10.49	4.88	34.45
Fort Winnebago	1,51	0.58	1,33	3.52	....	4.07	5,40	5.16	2.73	0.73	1.56	1.75	*4.85	14.63	5,02	3,84	*28.34
Fort Crawford	2.60	0.84	1.42	3.56	4.71	7.01	8.81	6.06	2.46	0.76	1.42	2.38	9.69	18.88	4.64	5.85	39.06
Fort Atkinson	....	....	....	....	5.55	5,88	10.14	5.09	2.35	1.81	0.86	1.11	....	21.11	5.02	....	....
Fort Snelling	1.50	0.72	0.97	5.16	4.50	1,64	4.80	4.37	4.26	0.97	0.77	0.58	10.63	10.81	5.90	2.80	30.14
Fort Des Moines	....	....	....	....	....	7.66	3.52	....	4.13	1.00	0.32	2.25	....	....	4.45	....	....
Fort Leavenworth	0.50	1.60	3,40	3.20	8.53	12.00	8,08	4.80	1.60	0.40	3.62	0.39	15.13	24,88	5.62	2.49	48.12

Notes.—Entries marked thus (*) are incomplete amounts.

At *Fort Adams*, *West Point*, and *Carlisle Barracks* the quantities appear over measured.

Profuse rains occurred at the west in May, June, and July. *Fort Scott*, *Fort Leavenworth*, and *St. Louis*, correspond in results.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	E.	S.	S. W.	W.	N. W.
Hancock Barracks ...	141	225	78	35	62	24	32	26	62	46	65	46
Fort Sullivan........	197	169	74	19	21	19	15	39	37	99	67	67
Fort Preble..........	174	192	68	19	50	30	7	31	71	107	30	39
Fort Constitution	179	185	67	26	32	47	19	14	75	35	66	80
Fort Adams.........	164	202	104	10	44	63	22	15	30	83	60	48
Fort Trumbull.......	181	185	119	17	51	39	14	32	29	69	55	78
Fort Columbus	199	167	108	13	26	75	25	45	10	57	45	82
Fort Hamilton	205	161	75	14	33	90	21	24	22	70	49	53
West Point	180	186	88	17	26	12	5	51	49	29	33	159
Watervliet Arsenal ..	193	172	65	23	38	2	1	9	137	34	87	57
Plattsburg Barracks ..	171	195	98	19	42	91	11	53	38	82	20	66
Madison Barracks....	130	236	102	34	6	78	7	81	30	83	10	71
Fort Ontario	124	240	68	14	12	76	14	68	44	61	30	59
Fort Niagara........	135	228	118	27	33	45	25	35	64	62	52	49
Buffalo Barracks.....	134	232	112	48	33	33	15	17	18	149	57	42
Alleghany Arsenal...	152	214	121	13	51	49	26	15	17	65	73	65
Carlisle Barracks	202	164	75	16	17	13	74	21	21	14	140	64
Fort Mifflin.........	218	148	98	11	11	73	12	42	15	94	29	89
Fort McHenry	214	152	79	9	53	41	29	35	36	38	85	51
Fort Severn.........	216	150	99	15	39	25	8	46	76	43	42	86
Fort Monroe	180	186	103	7	12	43	66	52	12	62	53	61
Fort Johnston.......	256	110	86	1	19	76	47	16	47	103	32	25
Augusta Arsenal.....	238	128	70	0	15	37	35	39	28	102	51	56
Fort Moultrie	234	132	88	0	29	51	60	21	46	57	64	34
Oglethorpe Barracks .	214	152	97	0	64	31	69	17	69	26	70	18
Fort Marion.........	249	117	83	0	41	65	67	45	33	46	36	33
Key West*..........	277	58	79	0	41	38	135	39	38	11	8	7
Fort Brooke.........	285	81	76	0	7	99	45	26	64	85	16	24
Camp Barrancas.....	174	192	114	0	54	39	41	49	17	79	44	41
Fort Pike...........	272	94	101	0	23	52	64	59	14	66	32	60
Fort Wood	219	147	90	0	84	2	96	1	99	6	75	3
New Orleans †	203	163	86	0	30	26	67	39	33	28	24	18
Baton Rouge........	213	153	74	0	39	58	122	40	24	30	35	17
Fort Jesup..........	222	144	76	0	24	64	10	50	138	48	6	25
Fort Towson........	223	143	84	3	42	59	70	75	13	17	16	65
Fort Washita........	229	137	66	6	33	23	21	29	163	35	31	29
Fort Smith..........	214	152	88	3	5	30	55	20	26	37	41	33
Fort Gibson	203	163	64	2	20	37	36	213	24	17	6	12
Fort Scott	202	164	109	7	47	35	32	26	76	72	47	29
Jefferson Barracks ...	212	154	90	11	28	37	21	60	54	54	56	54
St. Louis Arsenal....	283	83	75	10	37	49	50	60	40	40	53	36
Detroit Barracks.....	142	224	107	23	51	43	22	18	62	70	60	38
Fort Gratiot	112	255	113	38	14	76	16	83	43	73	19	46
Fort Mackinac	141	225	66	48	52	33	28	54	25	46	69	61
Fort Brady..........	111	255	93	57	29	24	65	82	13	27	60	65

* January not observed.

† At Pass Christian from July to October.

OBSERVATIONS FOR 1844.

WINDS.															
No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
247	783	96	264	130	380	106	380	249	671	184	625	261	888	186	631
85	117	75	232	62	110	155	372	148	326	398	846	268	522	270	665
202	704	119	441	28	83	124	342	283	700	429	906	122	270	155	544
129	287	190	483	75	132	55	125	300	571	139	291	265	544	321	845
177	594	251	760	90	200	62	142	121	261	331	818	241	607	191	684
204	546	156	531	55	178	128	349	117	246	278	745	219	504	314	862
105	143	301	476	102	236	179	292	41	100	228	376	180	359	328	793
132	426	362	742	84	177	96	142	89	113	282	513	197	577	212	650
103	182	50	48	19	19	206	221	197	205	116	116	134	168	638	864
151	356	10	22	2	3	35	95	550	1587	135	295	349	877	228	617
87	172	366	662	43	82	212	419	151	359	329	879	82	204	264	517
23	72	312	1067	28	87	325	1018	120	454	331	1318	42	158	285	1189
49	136	304	375	55	71	272	470	177	293	244	447	120	257	235	576
134	417	181	607	101	246	139	345	255	601	247	794	209	643	195	719
134	365	134	353	59	157	68	174	73	213	597	1862	229	759	170	502
205	305	198	216	106	106	61	61	68	106	261	494	293	590	262	577
68	87	52	52	296	304	86	86	85	85	58	58	562	605	257	330
45	81	292	629	48	110	168	370	60	137	377	711	115	253	358	781
214	416	165	407	115	230	140	233	145	243	151	285	339	693	205	553
155	513	101	322	34	73	184	521	304	890	171	439	170	458	345	1110
47	107	172	498	264	671	210	469	50	74	250	606	212	503	246	632
77	171	303	858	187	484	64	151	188	419	414	1623	129	427	100	257
62	79	150	244	142	240	159	232	113	163	410	652	205	469	226	375
115	379	204	652	242	674	84	208	186	703	228	759	257	804	136	448
258	258	126	271	278	300	67	79	278	383	104	127	282	393	71	86
164	500	262	662	268	611	182	405	133	267	184	294	143	273	133	297
163	453	154	447	542	1202	157	267	152	277	43	81	34	69	30	79
27	36	395	395	180	204	103	103	256	256	341	353	64	75	98	105
217	612	156	453	165	534	196	683	68	241	315	1130	178	499	163	399
93	186	210	440	257	582	236	534	56	149	266	654	127	352	241	656
338	377	9	10	384	423	5	9	397	455	25	37	299	303	12	13
121	168	105	153	270	465	156	263	133	227	113	213	98	154	71	165
156	205	232	417	487	838	162	235	98	102	122	169	141	261	69	126
97	121	256	361	41	56	200	332	553	743	194	303	24	48	99	159
170	249	236	283	280	353	300	457	53	163	68	95	66	79	261	406
132	299	94	185	83	152	118	229	651	1186	142	314	124	264	115	259
19	41	121	281	220	457	80	202	106	251	149	314	165	414	132	388
81	148	147	250	143	159	854	1430	96	169	69	129	25	38	49	85
190	417	142	244	128	209	104	187	303	630	288	664	189	411	115	210
113	246	150	235	86	144	241	461	218	411	217	411	223	491	216	470
149	149	196	196	201	213	242	242	159	159	162	191	211	324	144	152
205	488	171	374	87	189	73	145	248	565	282	713	239	560	154	372
57	201	305	926	66	134	331	833	171	393	292	747	78	221	184	530
209	514	131	288	111	313	216	588	101	250	186	542	276	774	244	620
115	254	95	177	262	463	327	692	54	68	108	235	240	563	262	738

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Winnebago*....	160	174	80	33	32	14	14	26	30	29	42	38
Fort Crawford.......	182	184	113	18	14	33	11	67	25	60	15	138
Fort Atkinson	167	199	79	26	75	30	46	60	39	37	28	69
Fort Snelling........	179	187	82	26	24	35	16	65	45	75	21	81
Fort Des Moines	186	180	91	15	53	22	46	21	52	42	73	47
Fort Leavenworth ...	191	175	76	9	30	45	17	62	55	50	21	79

* No observations in May.

OBSERVATIONS FOR 1844.

WINDS.

No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
128	345	55	164	56	165	105	371	122	365	116	375	170	525	153	507
58	103	132	176	44	68	270	437	99	174	239	367	59	114	553	879
302	582	121	249	105	222	240	502	156	398	148	347	114	237	278	582
97	233	140	297	65	118	262	519	182	311	299	574	86	227	323	701
213	382	88	160	184	215	85	148	210	354	167	418	294	386	187	299
120	234	182	293	68	109	249	609	222	602	202	532	84	153	316	685

MONTH OF JANUARY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	1.41	4.61	16.32	7.41	7.44	33	—34	25.6	41.4	32	55	18	20	5	6
Hancock Barracks	11.16	12.84	23.16	14.39	15.39	43	—10	27.6	25.4	38	93	14	35	5	10
Fort Sullivan	20.74	23.03	27.48	23.29	23.63	47	— 2	23.4	25.6	13	44	16	45	4	12
Fort Preble	21.80	23.00	27.60	23.30	23.67	44	— 4	20.3	27.7	43	160	4	21	1	3
Fort Constitution	23.75	25.25	30.03	24.96	26.00	43	3	17.0	23.0	13	23	17	54	2	5
Fort Adams	31.64	32.25	34.68	31.41	32.49	45	11	12.5	21.5	36	138	33	94	9	23
Fort Trumbull	29.64	31.25	35.25	29.61	31.44	46	8	14.6	23.4	32	77	12	34	4	14
Fort Columbus	32.55	34.29	38.36	33.00	34.55	48	14	13.4	20.6	2	4	33	65	2	2
Fort Hamilton	32.61	33.48	39.06	34.97	35.03	50	14	15.0	21.0	17	70	35	99	7	13
West Point	24.00	28.93	32.80	28.38	28.53	45	8	16.5	20.5	10	23	0	0	0	0
Watervliet Arsenal	20.10	28.19	31.03	23.81	25.78	48	2	22.2	23.8	7	14	0	0	0	0
Plattsburg Barracks	15.06	17.16	23.35	19.16	18.68	38	—12	19.3	30.7	54	152	2	7	15	47
Madison Barracks	19.29	20.03	25.69	21.90	21.73	43	—14	21.3	35.7	2	6	50	170	4	11
Fort Ontario	23.67	25.77	28.03	25.19	25.66	41	— 2	15.3	27.7	8	19	38	96	11	20
Fort Niagara	27.54	29.00	31.35	28.19	29.02	46	11	17.0	18.0	5	19	6	21	8	29
Buffalo Barracks	26.48	28.12	31.29	26.41	28.07	44	4	15.9	24.1	4	10	29	72	1	2
Alleghany Arsenal	30.06	32.22	38.93	32.93	33.53	56	21	21.5	12.5	7	10	18	18	17	19
Carlisle Barracks	32.54	35.12	39.90	35.64	35.80	52	20	16.2	15.8	4	4	7	8	12	15
Fort Mifflin	32.54	36.09	41.16	35.93	36.43	60	19	23.6	17.4	7	12	12	25	5	14
Fort McHenry	33.60	36.40	42.10	35.30	36.85	56	20	19.1	16.9	9	29	17	18	7	6
Fort Severn	36.19	38.25	44.41	38.38	39.31	62	25	22.7	14.3	8	25	6	16	0	0
Fort Monroe	41.67	42.74	50.35	44.39	44.79	63	31	18.2	13.8	2	3	15	30	7	11
Fort Johnston	45.30	51.15	57.11	50.20	50.94	69	30	18.1	20.9	4	10	19	74	2	3
Augusta Arsenal	45.54	49.67	58.12	53.06	51.40	71	32	19.6	19.4	1	1	2	2	4	6
Fort Moultrie	50.38	54.58	58.54	55.54	54.78	68	38	13.2	16.8	3	13	14	50	11	40
Oglethorpe Barracks	43.74	50.80	63.35	52.19	52.52	76	30	23.5	22.5	15	25	4	5	11	14
Fort Marion	52.26	62.13	65.00	57.90	59.32	76	37	16.7	22.3	13	36	20	53	11	37
Key West	67.19	71.29	74.35	67.09	69.98	83	56	13.0	14.0	40	125	25	50	25	48
Fort Brooke	57.42	60.00	67.25	63.35	62.00	74	42	12.0	20.0	13	14	30	27	30	50
Camp Barrancas	49.29	54.25	61.93	54.38	54.96	72	30	17.0	25.0	33	84	17	32	6	13
Mount Vernon Arsenal	45.00	50.00	60.00	50.20	51.30	70	29	18.7	22.3	1	2	14	45	1	2
Fort Pike	49.93	54.51	61.35	55.38	55.29	73	38	17.7	17.3	7	17	17	40	21	44
Fort Wood	50.03	56.29	62.50	53.56	55.59	74	36	18.4	19.6	42	146	1	3	26	28
New Orleans	51.26	57.97	63.45	56.32	57.25	72	36	14.7	21.3	29	29	9	9	22	23
Baton Rouge	46.14	54.23	66.60	52.18	54.79	76	32	21.2	22.8	1	2	15	31	51	107
Fort Jesup	45.50	50.20	61.40	49.80	51.72	76	26	24.3	25.7	54	56	0	0	0	0
Camp Salubrity	46.00	53.00	62.00	54.00	53.75	75	33	21.2	20.8	2	4	13	34	3	7
Fort Towson	38.32	44.38	58.12	45.48	46.57	78	22	31.4	24.6	18	36	14	22	25	42
Fort Washita	40.80	46.45	58.74	43.19	47.29	75	26	27.7	21.3	11	27	1	2	7	13
Fort Smith	34.51	41.61	56.12	41.74	43.49	74	18	30.5	25.5	8	11	12	19	40	65
Fort Gibson	39.81	42.20	57.35	45.60	46.24	76	26	29.8	20.2	17	16	29	32	6	6
Fort Scott	32.19	37.41	51.64	38.54	39.94	75	14	35.1	25.9	16	44	2	4	9	22
Jefferson Barracks	33.45	36.87	47.61	38.58	39.13	70	22	30.9	17.1	6	14	2	6	0	0
St. Louis Arsenal	33.54	37.80	45.41	38.00	38.69	62	19	23.3	19.7	13	14	13	14	13	15
Detroit Barracks	26.80	31.40	32.90	29.20	30.07	40	6	9.3	24.7	21	62	2	6	21	52
Fort Gratiot	26.03	27.64	32.88	27.29	28.46	53	7	24.5	21.5	7	26	19	64	3	9
Fort Mackinac	20.61	22.13	25.09	22.84	22.67	42	— 4	19.3	26.7	21	67	2	8	11	37

MONTH OF JANUARY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	12	9	11	9	12	14	27	18	35	3.38	3.54	2.88	5.83	3.83	11	20	0	12	3.75	
8	14	18	41	9	31	10	26	17	55	2.94	2.90	3.42	3.74	3.25	8	23	2	10	4.37	
7	25	4	15	7	18	20	65	38	140	3.35	2.38	2.38	5.35	3.36	10	21	3	6	3.12	
3	14	4	6	27	47	13	32	24	90	2.20	3.20	3.40	4.20	3.25	9	22	2	10	3.75	
5	19	9	22	9	18	23	45	36	115	3.00	3.52	3.93	4.12	3.86	11	20	2	12	3.01	
5	15	7	24	9	22	12	42	13	35	2.87	2.87	3.19	4.45	3.34	8	23	9	5	2.90	
6	18	5	17	14	32	19	37	32	88	3.67	3.83	3.87	5.09	4.11	13	18	7	6	3.54	
4	14	0	0	12	22	7	17	64	164	2.71	2.84	3.97	3.68	3.30	11	20	7	3	4.26	
4	9	1	2	16	43	17	62	27	111	4.16	3.74	6.06	5.32	4.82	17	14	7	2	4.87	
5	5	16	17	10	11	15	20	68	111	3.58	3.61	3.80	3.94	3.73	10	21	7	6	5.15	
6	18	50	105	2	2	38	92	20	41	4.19	4.03	3.77	4.19	4.04	14	17	4	4	4.25	
0	0	28	93	3	8	21	51	1	6	2.22	2.70	2.35	1.45	2.18	2	29	1	7	2.84	
5	17	7	27	24	102	0	0	32	130	2.19	2.38	2.00	2.61	2.29	7	24	3	5	3.50	
19	28	9	18	13	24	10	22	16	38	1.41	1.77	1.90	1.90	1.74	3	28	1	11	3.01	
29	68	25	54	23	93	9	32	19	86	2.32	2.06	2.45	2.19	2.25	3	28	3	7	1.75	
12	30	9	27	35	121	15	41	23	58	1.67	1.93	2.35	2.68	2.66	5	26	5	10	4.08	
5	5	4	15	28	72	18	60	27	95	3.48	2.93	2.83	3.29	3.13	9	22	8	4	2.85	
13	13	5	6	3	3	36	51	44	67	5.00	5.38	4.93	5.09	5.10	17	14	5	5	4.74	
16	43	3	9	17	32	30	70	34	87	3.48	4.16	4.03	5.51	4.26	13	18	6	3	7.90	
6	6	5	8	28	32	21	35	31	96	4.45	4.17	4.14	4.18	4.16	14	17	5	2	2.40	
13	37	24	94	10	27	13	26	32	127	4.58	5.03	4.74	5.35	4.92	18	13	5	3	3.69	
12	22	3	7	30	53	22	57	33	90	4.13	4.13	4.26	6.35	4.71	16	15	8	1	1.88	
3	6	17	65	30	118	33	102	10	33	3.17	8.11	5.26	5.12	3.92	21	10	7	0	1.85	
12	18	5	9	49	72	23	62	28	62	6.16	6.67	6.00	7.25	6.52	21	10	6	0	1.90	
5	13	15	60	39	132	31	122	6	23	5.82	5.83	6.48	6.93	6.26	22	9	7	0	3.42	
1	4	22	33	4	6	63	91	4	9	6.93	6.12	7.32	7.25	6.90	23	8	6	0	2.85	
9	23	6	10	9	27	23	52	18	35	5.06	6.45	6.71	7.00	6.31	23	8	6	0	1.98	
9	15	18	37	1	2	0	0	2	8	5.87	6.32	6.93	8.06	6.80	23	8	8	0	4.42	
15	18	20	22	6	6	1	1	9	19	4.83	6.38	8.19	5.22	6.13	26	5	3	0	3.80	
9	37	11	39	11	34	11	28	21	67	3.29	4.51	4.38	5.61	4.45	15	16	8	0	4.17	
14	28	4	11	30	73	1	2	59	154	4.80	5.16	5.35	6.13	5.36	17	14	6	0	11.30	
18	36	6	11	13	36	15	34	26	61	5.80	5.80	6.00	6.67	6.07	20	11	6	0	4.42	
1	1	30	30	1	1	20	24	1	1	4.20	3.70	4.70	5.40	4.50	13	18	7	0	5.42	
11	13	10	13	1	1	21	26	7	8	3.06	3.22	3.90	4.42	3.65	11	20	7	0	6.24	
22	49	7	14	15	32	13	26	0	0	2.40	6.70	7.19	2.50	4.69	22	9	8	0	4.90	
0	0	43	56	21	45	4	10	0	0	5.40	5.10	5.80	5.80	5.45	17	14	11	1	8.32	
38	108	10	22	24	46	5	15	23	66	4.00	3.00	3.00	5.00	3.75	12	19	6	1	....	
23	46	3	9	4	8	8	17	29	64	4.12	5.12	6.35	7.38	8.74	19	12	6	1	3.00	
3	6	53	119	11	25	36	64	2	3	5.26	6.13	6.29	7.12	6.20	20	11	5	0	1.35	
7	15	18	30	6	11	20	40	13	24	7.16	7.94	7.77	8.64	7.99	27	4	5	1	2.29	
29	35	21	36	10	13	3	3	9	8	6.19	6.19	7.29	6.77	6.61	22	9	4	1	1.36	
13	41	26	93	20	53	27	71	11	29	3.84	5.07	6.54	8.19	5.91	24	7	3	5	0.70	
4	8	26	59	35	74	19	40	32	73	4.06	4.09	4.70	5.16	4.50	14	17	2	2	1.18	
18	19	13	15	14	17	25	44	15	25	6.51	7.61	8.19	5.90	7.05	20	11	3	3	1.12	
1	3	23	61	4	14	34	105	6	16	1.60	1.90	2.10	2.70	2.10	5	26	5	5	1.71	
39	104	18	48	18	68	2	5	18	65	2.29	2.06	1.87	2.32	2.13	7	24	5	7	2.95	
24	66	8	25	24	86	21	63	13	33	2.35	2.61	1.80	1.70	2.11	3	28	3	13	2.05	

MONTH OF JANUARY, 1845.

STATION.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady..........	14.90	16.10	22.80	17.70	17.90	36	—10	18.1	27.9	14	25	13	15	18	43
Fort Wilkins..........	19.96	21.70	23.61	20.32	21.40	42	0	20.6	21.4	26	88	3	12	5	19
Fort Winnebago.......	19.61	22.31	29.06	23.13	23.53	42	— 5	18.5	28.5	14	47	3	7	3	8
Fort Crawford.........	21.11	23.28	30.13	23.20	24.43	45	1	20.6	23.4	46	74	1	3	7	10
Fort Atkinson	17.93	21.67	28.00	22.32	22.48	47	— 2	24.5	24.5	29	84	16	53	9	27
Fort Snelling..........	14.77	17.22	26.51	19.45	19.49	42	—12	22.5	31.5	0	0	17	26	20	25
Fort Leavenworth	30.26	33.29	46.19	36.87	36.65	69	15	32.3	21.6	16	21	9	12	2	3
Fort Des Moines.......	22.58	27.67	36.84	28.77	28.96	56	8	27.0	21.0	9	24	1	1	39	40

MONTH OF JANUARY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
38	88	5	5	11	24	15	48	10	29	1.70	2.70	2.20	2.30	2.25	3	28	1	12	1.66	
5	9	13	33	17	39	49	117	8	23	1.48	1.29	0.74	1.29	1.20	2	29	4	10	....	
17	54	8	33	4	14	28	97	17	56	3.09	3.68	4.00	4.39	3.54	12	19	1	8	0.67	
9	10	30	64	2	2	9	22	8	24	4.10	3.19	2.26	5.15	3.67	11	20	2	7	1.10	
8	23	18	51	10	36	5	24	29	96	3.70	3.90	3.54	5.80	4.23	9	22	3	3	0.43	
27	35	7	8	15	15	20	32	18	27	4.64	5.67	6.16	4.29	5.19	17	14	0	3	0.49	
30	74	8	38	12	39	4	12	43	96	6.00	6.16	7.06	8.06	6.82	22	9	1	2	0.60	
1	1	6	21	9	20	57	89	2	5	4.58	5.32	4.97	7.61	5.62	18	13	1	2	1.00	

MONTH OF FEBRUARY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	6.00	10.64	20.60	12.00	12.31	47	—39	34.7	51.3	10	20	5	8	13	15
Hancock Barracks	10.34	14.34	25.61	15.89	16.59	49	—19	32.4	35.6	14	32	7	20	13	28
Fort Sullivan	18.87	23.46	30.89	23.21	24.11	54	—10	29.9	34.1	4	12	5	22	9	26
Fort Preble	19.00	21.30	27.00	22.70	22.50	43	— 6	20.5	28.5	33	121	0	0	4	9
Fort Constitution	21.25	23.67	30.60	24.46	24.99	50	1	25.0	24.0	9	11	17	54	3	5
Fort Adams	26.00	27.52	32.82	29.32	28.91	50	5	21.1	23.9	22	86	16	45	4	19
Fort Trumbull	24.64	28.03	34.39	28.00	28.77	56	4	27.2	24.8	17	34	6	18	6	25
Fort Hamilton	28.07	29.78	37.64	32.17	31.91	60	8	28.1	23.9	16	71	25	78	4	9
Fort Columbus	28.18	30.80	37.96	30.86	31.95	58	6	26.0	26.0	0	0	33	62	2	2
West Point	24.68	26.57	33.17	28.39	28.20	57	3	28.8	25.2	5	7	9	20	0	0
Watervliet Arsenal	18.43	28.32	34.14	26.46	26.84	57	— 6	30.2	32.8	0	0	0	0	0	0
Plattsburg Barracks	15.71	18.60	24.42	19.28	19.50	46	—16	26.5	35.5	28	77	8	34	7	19
Madison Barracks	18.03	20.50	26.46	22.42	21.85	53	—14	31.1	35.9	0	0	35	112	0	0
Fort Ontario	22.86	25.89	28.57	25.75	25.77	52	— 3	26.2	28.8	5	9	20	57	5	10
Fort Niagara	26.53	28.85	31.64	29.67	29.17	56	10	26.8	19.2	2	6	3	12	6	17
Buffalo Barracks	24.85	28.07	33.10	27.41	28.36	54	4	25.6	24.4	3	12	16	43	5	12
Alleghany Arsenal	26.64	30.46	37.17	31.14	31.35	63	5	31.6	26.4	5	5	21	27	2	3
Carlisle Barracks	29.60	32.78	35.53	33.53	32.86	62	13	29.1	19.9	3	5	0	0	28	30
Fort Mifflin	28.48	32.82	39.82	33.14	33.56	58	8	24.4	25.6	11	26	9	23	5	14
Fort McHenry	29.40	32.30	40.50	34.18	34.09	61	13	26.9	23.1	17	26	12	28	4	12
Fort Severn	31.96	35.00	42.92	36.17	36.51	58	15	21.5	21.5	6	18	8	25	0	0
Fort Monroe	39.28	41.46	47.14	43.10	42.74	68	21	25.3	21.7	8	16	12	18	8	15
Fort Johnston	44.60	50.10	56.15	45.11	48.99	70	26	21.0	23.0	11	36	5	18	14	53
Augusta Arsenal	44.85	50.80	60.53	55.50	52.92	76	26	23.1	26.9	3	3	1	2	5	12
Fort Moultrie	48.85	53.17	56.96	53.46	53.11	67	33	13.9	20.1	11	39	23	79	8	25
Oglethorpe Barracks	44.35	51.46	65.78	52.89	53.62	80	26	26.4	27.6	8	9	1	1	23	39
Fort Marion	50.93	62.96	66.57	56.46	59.18	80	34	20.8	25.2	11	28	15	36	13	28
Key West	64.32	71.50	73.68	66.10	68.90	81	54	12.1	14.9	52	156	9	22	12	28
Fort Brooke	54.03	58.71	67.39	63.14	60.82	77	37	16.2	23.8	25	25	18	19	9	10
Camp Barrancas	49.00	55.92	64.14	55.64	56.17	74	30	17.8	26.2	13	21	4	9	3	8
Mount Vernon Arsenal	44.96	52.30	63.89	51.40	53.14	74	30	20.9	23.1	0	0	14	31	0	0
Fort Pike	51.10	57.25	65.39	57.07	57.70	78	33	20.3	24.7	4	7	11	20	14	27
Fort Wood	45.15	60.32	68.32	58.40	58.05	78	36	19.9	22.1	36	40	0	0	23	24
New Orleans	50.39	62.18	68.96	58.10	59.91	79	34	19.1	25.9	7	9	11	11	16	17
Baton Rouge	47.60	56.10	69.60	53.80	56.77	76	29	19.2	27.8	6	12	9	21	52	107
Fort Jesup	48.00	53.00	66.70	54.90	55.65	78	28	22.3	27.7	17	17	24	29	0	0
Camp Salubrity	50.00	61.00	70.00	59.00	60.00	82	34	22.0	26.0	2	3	11	27	4	9
Fort Towson	41.10	49.85	63.96	47.92	50.71	80	20	29.3	30.7	17	36	5	9	19	28
Fort Washita	44.42	51.82	65.07	53.25	53.64	80	30	26.4	23.6	15	38	0	0	7	12
Fort Smith	36.61	47.53	61.10	44.32	47.39	82	18	34.6	29.4	4	13	6	7	19	33
Fort Gibson	42.67	46.16	61.99	51.80	50.65	77	22	26.3	28.7	12	16	17	19	1	1
Fort Scott	34.03	39.28	54.92	42.60	42.71	73	13	30.3	29.7	33	75	11	27	19	41
Jefferson Barracks	35.14	40.17	55.10	41.78	43.05	78	14	34.9	29.1	9	21	7	18	1	2
St. Louis Arsenal	32.46	38.00	50.46	41.14	40.51	74	14	33.5	26.5	12	13	13	14	15	15
Detroit Barracks	24.10	29.90	36.30	29.40	29.92	58	3	28.1	26.9	13	41	1	3	20	52
Fort Gratiot	24.82	27.71	36.17	29.03	29.43	58	0	28.6	29.4	3	16	10	39	5	13
Fort Mackinac	19.04	22.15	25.54	23.39	22.53	42	— 1	19.5	23.5	17	67	17	67	5	22

MONTH OF FEBRUARY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	11	9	12	10	15	30	56	25	59	3.21	3.21	3.57	8.00	3.00	10	18	0	10	2.60	
3	6	11	34	6	17	31	86	19	60	4.14	3.86	3.04	3.96	3.75	10	18	0	9	1.73	
6	18	10	30	3	10	14	39	48	172	4.46	5.07	4.72	4.92	4.79	16	12	5	3	2.62	
2	5	11	22	24	44	21	38	16	46	4.10	4.10	4.90	5.10	4.55	14	14	5	4	2.07	
1	1	9	13	5	8	26	50	41	109	4.25	4.50	4.89	4.96	4.65	14	14	5	6	2.88	
12	34	0	0	20	55	25	89	13	58	4.32	4.71	4.86	4.28	4.54	11	17	4	4	3.15	
5	15	6	16	12	24	20	37	40	104	4.35	5.03	5.07	5.50	4.98	15	13	5	6	3.57	
3	6	2	5	22	60	17	48	23	84	5.60	5.50	5.64	7.14	5.97	17	11	3	3	5.70	
3	2	0	0	5	6	2	2	67	130	4.57	4.78	5.57	4.28	4.80	15	13	4	3	3.22	
11	12	15	15	13	14	9	23	50	100	4.32	3.85	4.32	4.75	4.31	12	16	4	4	2.88	
0	0	28	77	11	21	56	136	16	46	4.82	4.78	5.32	5.68	5.15	13	15	6	3	2.95	
1	3	30	96	3	7	19	56	16	44	3.07	3.39	3.64	1.96	3.01	9	19	5	5	2.67	
11	29	0	0	43	133	0	0	23	74	2.50	3.07	2.67	1.91	2.53	5	23	6	6	2.92	
30	47	2	3	24	37	7	16	19	37	1.89	2.46	2.10	2.36	2.20	4	24	3	5	2.68	
9	18	42	94	11	36	12	37	27	126	2.10	2.03	3.10	1.39	2.15	3	25	3	2	1.17	
15	35	9	22	41	122	7	23	14	57	1.00	2.50	3.10	2.00	2.15	3	25	5	8	2.29	
5	5	16	19	17	45	21	35	25	96	3.60	3.10	4.03	4.75	3.87	12	16	8	5	1.50	
8	8	5	5	5	6	44	50	19	33	4.32	4.14	4.70	5.39	4.63	13	15	4	5	6.12	
4	5	12	19	14	24	29	59	28	72	4.75	6.07	5.28	6.25	5.58	16	12	4	3	8.20	
11	11	0	0	8	11	16	42	44	74	3.13	4.14	4.90	5.17	4.33	14	14	4	4	3.59	
13	40	14	42	9	18	7	14	43	154	4.92	5.35	5.53	5.85	5.41	17	11	4	4	5.10	
19	34	5	12	25	44	4	10	31	98	4.68	4.82	5.00	6.60	5.27	15	13	4	2	2.42	
13	32	24	86	15	49	17	72	8	34	4.16	5.16	6.11	6.10	5.38	21	7	4	0	2.00	
28	40	5	5	16	34	31	77	23	48	5.96	6.60	6.57	7.10	6.80	18	10	3	0	0.62	
10	33	14	51	18	55	21	82	7	24	6.00	6.32	6.10	7.82	6.56	22	6	4	0	0.90	
0	0	27	41	4	8	45	88	4	11	6.96	6.71	7.67	8.14	7.37	22	6	2	0	0.05	
6	20	11	39	11	35	28	69	6	13	6.25	7.89	8.14	9.14	7.85	25	3	3	0	0.50	
5	8	24	51	1	1	1	1	6	15	7.21	7.39	7.78	9.17	7.64	25	3	4	0	0.14	
2	3	36	37	4	6	9	11	9	24	5.89	7.39	8.46	6.39	7.03	27	1	1	0	0.15	
2	7	19	59	21	57	35	65	14	46	4.53	5.67	6.14	7.14	5.87	20	8	5	0	1.16	
30	98	0	0	19	59	0	0	49	151	6.39	6.92	6.50	7.21	6.75	21	7	4	0	8.37	
13	28	1	1	27	62	12	26	29	88	8.14	8.03	8.60	8.64	8.35	24	4	5	0	2.23	
0	0	30	34	0	0	22	24	0	0	6.20	6.80	6.30	7.50	6.42	21	7	3	0	1.28	
13	13	21	28	8	14	12	16	9	15	3.86	6.36	5.71	6.39	5.58	17	11	3	0	1.19	
17	34	5	10	6	13	13	29	4	7	2.12	7.40	8.14	3.12	5.19	24	4	4	0	1.80	
6	6	47	52	11	18	0	0	0	0	6.20	7.20	7.00	6.20	6.65	20	8	6	0	1.80	
44	116	5	11	31	81	4	14	11	31	6.20	5.80	4.25	7.00	5.81	19	9	5	0	....	
21	52	9	27	9	17	4	6	28	64	5.46	5.64	6.00	8.10	6.30	17	11	4	0	0.70	
3	6	57	124	5	10	23	41	2	6	5.42	6.25	5.53	8.32	6.38	17	11	2	0	0.66	
10	20	10	19	17	31	32	51	14	30	7.57	6.96	8.14	8.53	7.80	22	6	2	0	1.20	
23	31	23	28	20	22	7	14	9	10	3.46	5.78	6.14	8.30	5.92	17	11	1	0	0.80	
10	14	4	13	13	38	6	14	16	38	3.71	4.35	5.60	8.79	5.61	20	8	4	0	2.33	
17	35	23	59	34	93	5	16	16	41	4.57	4.71	4.64	6.89	5.20	15	13	8	0	0.84	
14	18	17	24	10	14	20	36	11	13	7.29	7.92	8.42	7.21	7.71	26	2	4	0	1.74	
5	18	9	20	16	46	32	79	5	13	2.60	2.80	2.70	3.60	2.92	9	19	3	4	0.63	
49	167	5	17	18	66	2	6	20	80	1.84	2.28	2.32	3.32	2.44	5	23	3	2	1.16	
14	41	13	27	15	43	23	49	8	24	2.10	2.18	2.82	2.64	2.43	5	23	3	9	1.05	

MONTH OF FEBRUARY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		S. E.		E.	
Fort Brady	14.70	18.00	25.90	20.40	19.75	49	—16	29.2	35.8	6	16	4	13	38	74
Fort Wilkins	20.96	23.03	28.00	22.82	23.70	53	0	29.3	23.7	33	117	4	14	22	48
Fort Winnebago	22.07	26.93	34.07	27.10	27.54	52	— 5	24.5	32.5	19	45	6	21	3	10
Fort Crawford	21.14	28.80	34.19	28.10	28.06	48	2	19.9	26.1	55	86	0	0	8	14
Fort Atkinson	22.17	27.60	31.71	24.89	26.59	46	2	19.4	24.6	25	70	12	37	18	51
Fort Snelling	20.85	24.28	31.85	25.53	25.60	47	— 4	21.4	29.6	8	20	12	12	17	21
Fort Leavenworth	29.60	34.42	48.14	37.92	37.52	74	10	36.5	27.5	4	8	7	15	2	4
Fort Des Moines	26.00	29.78	41.57	30.99	32.08	62	4	29.9	28.1	3	3	21	22	20	24

MONTH OF FEBRUARY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
21	47	2	3	12	18	8	16	21	62	2.30	2.20	1.80	2.30	2.15	3	25	3	11	1.88	
4	13	16	39	5	13	21	52	7	26	0.96	0.78	2.21	1.82	1.44	2	26	2	9	....	
19	51	1	4	4	7	23	64	14	45	3.57	3.78	3.64	4.39	3.85	9	19	3	8	2.49	
4	6	41	56	0	0	5	6	1	1	3.90	3.23	4.40	5.40	4.23	11	17	2	7	2.79	
11	35	0	0	10	25	5	24	31	108	4.35	4.10	4.10	5.14	4.42	13	15	2	5	1.63	
26	34	3	10	8	10	8	13	30	50	4.71	5.53	5.50	3.75	4.87	17	11	2	7	1.40	
16	38	9	30	15	35	2	2	57	136	6.53	6.85	7.35	7.89	7.15	22	6	4	2	2.20	
4	7	2	4	3	3	42	78	17	50	5.21	5.42	5.39	5.39	5.35	18	10	4	4	1.32	

MONTH OF MARCH, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	11.38	19.25	32.57	20.58	20.94	50	—24	29.1	44.9	20	54	11	15	8	14
Hancock Barracks	18.45	24.68	34.87	29.29	26.82	48	2	21.2	24.8	15	45	4	12	14	41
Fort Sullivan	26.22	32.03	36.93	30.64	31.45	51	16	19.5	15.5	3	10	15	58	7	21
Fort Preble	27.20	30.10	35.00	31.60	30.97	45	10	14.0	21.0	15	41	7	27	7	20
Fort Constitution	29.87	33.83	39.06	32.70	33.86	54	18	20.1	15.9	9	11	12	38	10	24
Fort Adams	34.45	37.87	41.93	36.77	37.75	57	23	19.2	14.8	25	110	14	26	13	36
Fort Trumbull	32.51	37.87	45.03	36.29	37.94	69	18	31.1	19.9	12	25	12	36	4	11
Fort Hamilton	37.31	39.41	47.90	41.83	41.61	76	25	34.4	16.6	11	36	27	73	10	21
Fort Columbus	37.52	40.60	49.03	41.32	42.12	70	26	27.9	16.1	1	1	31	47	1	1
West Point	34.26	38.51	46.32	39.38	39.62	74	25	34.4	14.6	3	4	4	4	0	0
Watervliet Arsenal	33.81	42.58	46.48	39.74	40.65	72	18	31.3	22.7	0	0	0	0	0	0
Plattsburg Barracks	25.16	30.00	36.77	31.38	30.83	56	0	25.2	30.8	35	121	4	18	4	19
Madison Barracks	30.74	34.25	38.77	34.67	34.61	70	10	25.4	24.6	1	2	20	56	2	7
Fort Ontario	31.48	36.35	41.74	36.29	36.46	76	11	39.5	25.5	4	13	10	17	1	1
Fort Niagara	34.64	39.87	42.96	37.87	38.83	71	20	32.2	18.8	9	27	7	22	4	8
Buffalo Barracks	31.96	38.38	43.29	35.29	37.23	74	15	36.8	22.2	3	9	12	34	0	0
Alleghany Arsenal	32.90	38.90	48.12	38.06	39.49	75	19	35.5	20.5	1	3	21	19	4	4
Carlisle Barracks	38.25	41.70	50.00	44.29	43.56	76	26	32.4	17.6	0	0	0	0	18	20
Fort Mifflin	38.52	46.00	51.58	43.77	44.97	72	26	27.0	19.0	9	15	14	35	3	6
Fort McHenry	38.11	43.16	51.15	44.10	44.13	75	24	30.9	20.1	8	12	11	20	6	7
Fort Severn	40.77	46.48	53.74	45.38	46.59	73	26	26.4	20.6	4	15	10	29	0	0
Fort Monroe	46.38	50.41	56.96	50.29	51.01	74	30	23.0	21.0	5	8	6	14	18	44
Fort Johnston	50.90	56.15	63.90	55.25	56.55	76	32	19.4	24.6	16	50	10	39	15	42
Augusta Arsenal	48.83	55.61	64.67	59.64	57.19	79	37	21.8	20.2	1	3	2	6	15	26
Fort Moultrie	55.45	58.83	62.77	59.75	59.20	73	42	13.8	17.2	9	26	24	68	12	26
Oglethorpe Barracks	51.90	58.71	68.77	58.61	59.50	84	34	24.5	25.5	22	35	7	18	21	35
Fort Marion	58.87	64.97	68.06	62.84	63.68	85	42	21.3	21.7	32	112	21	58	6	13
Key West	70.09	76.54	77.80	71.80	74.06	82	64	7.9	10.1	28	81	10	20	26	70
Fort Brooke	62.66	65.80	72.29	68.25	67.25	80	50	12.7	17.3	6	12	21	39	16	16
Camp Barrancas	54.96	61.61	65.87	60.51	60.74	74	38	13.3	22.7	24	45	9	14	7	21
Mount Vernon Arsenal	49.70	50.22	67.29	55.70	55.73	84	34	28.3	21.7	0	0	31	91	0	0
Fort Pike	58.51	61.61	66.61	59.87	61.65	80	40	18.3	21.7	10	21	13	31	36	72
Fort Wood	56.21	61.58	67.23	60.30	61.33	84	42	22.7	19.3	31	33	0	0	45	48
New Orleans	56.45	63.13	67.26	61.61	62.11	80	42	17.9	20.1	37	40	11	11	21	25
Baton Rouge	51.11	61.11	70.10	57.14	59.86	84	38	24.1	21.9	16	42	27	63	50	111
Fort Jesup	51.30	54.10	67.20	57.10	57.42	84	36	26.6	21.4	43	50	0	0	0	0
Camp Salubrity	53.00	62.00	68.00	59.00	60.50	80	38	19.5	22.5	7	14	10	20	15	32
Fort Towson	42.93	51.38	63.19	51.32	52.20	80	29	27.8	23.2	26	46	10	16	21	40
Fort Washita	46.16	52.58	61.07	52.87	53.17	80	32	26.8	21.2	11	21	10	20	28	57
Fort Smith	40.96	51.06	59.67	48.53	50.05	82	20	31.9	30.1	2	3	13	25	25	35
Fort Gibson	43.66	48.00	59.01	51.51	50.54	77	26	26.5	24.5	9	9	43	44	4	5
Fort Scott	38.42	44.13	56.80	44.06	45.85	80	13	34.1	32.9	34	76	2	3	9	17
Jefferson Barracks	38.03	44.12	58.19	44.96	46.32	85	17	38.7	29.3	12	30	7	16	1	4
St. Louis Arsenal	35.87	44.68	52.64	44.16	44.34	80	16	35.7	28.3	19	30	9	13	16	17
Detroit Barracks	31.30	40.20	49.20	38.10	39.70	76	15	36.3	24.7	13	29	2	7	13	22
Fort Gratiot	33.09	38.12	46.09	36.67	38.49	75	18	36.5	20.5	8	14	18	62	2	6
Fort Mackinac	25.26	32.61	33.45	28.71	30.01	48	1	18.0	29.0	14	38	12	39	12	38

MONTH OF MARCH, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	12	21	30	7	14	16	42	21	70	3.80	4.77	4.54	4.93	4.51	16	15	2	10	1.77	
6	14	16	40	16	37	34	89	13	44	3.13	3.51	3.42	3.74	3.45	11	20	0	10	1.70	
4	10	12	29	12	36	21	58	37	132	4.03	3.93	3.51	5.25	4.18	13	18	3	4	2.25	
10	21	19	35	31	48	18	48	13	42	3.50	3.70	3.50	4.70	3.85	13	18	4	4	2.37	
3	5	16	34	2	3	35	87	30	92	3.19	4.32	4.43	4.74	4.17	15	16	5	5	3.20	
18	53	4	7	19	55	19	75	12	49	3.80	4.57	4.13	5.29	4.44	12	19	7	2	2.49	
5	15	5	10	28	62	15	28	43	105	4.70	5.16	4.77	5.67	5.07	15	16	8	3	3.40	
12	4	9	19	23	60	21	90	21	85	4.96	4.86	5.93	5.03	5.19	18	13	5	1	2.21	
12	23	1	6	18	25	7	13	53	120	5.10	4.58	5.23	4.00	4.72	16	15	8	2	3.33	
15	19	24	33	16	14	7	9	55	117	4.71	4.58	4.13	4.58	4.50	14	17	7	3	3.40	
9	26	45	132	2	4	58	175	8	16	6.26	5.87	5.58	5.42	5.78	17	14	6	3	3.36	
1	4	41	147	2	5	30	108	7	28	3.61	3.19	4.54	2.58	3.48	12	19	3	5	2.09	
21	70	3	10	29	107	5	17	43	184	2.35	3.12	2.64	3.51	2.90	6	25	2	2	2.55	
21	33	10	15	39	78	12	26	27	86	3.12	2.87	3.32	3.84	3.28	10	21	4	2	0.85	
13	35	27	100	17	54	30	109	17	63	2.35	3.19	3.29	2.87	2.92	8	23	5	4	1.94	
8	29	15	40	52	158	18	62	11	35	1.70	3.35	3.29	3.90	3.06	8	23	6	9	2.91	
5	6	18	25	25	57	6	11	44	154	3.96	4.00	4.61	5.03	4.40	14	17	10	4	3.04	
8	8	1	1	3	3	63	85	31	52	4.54	4.87	5.09	6.22	5.18	17	14	7	1	5.93	
6	20	19	64	26	68	28	94	19	70	5.45	5.25	5.71	5.77	5.54	18	13	7	1	5.40	
17	17	9	13	28	68	27	61	18	73	4.19	5.12	4.18	6.70	5.04	15	16	10	1	1.70	
18	58	24	78	19	58	12	42	28	121	5.41	5.87	5.48	6.22	5.74	18	13	6	1	2.85	
18	41	6	17	32	78	12	42	27	74	5.64	5.32	6.13	7.58	7.41	17	14	6	0	1.20	
7	18	22	81	24	86	24	69	5	14	4.18	5.26	6.70	5.13	5.32	22	9	7	0	2.99	
13	26	19	29	34	66	15	39	25	51	5.06	5.38	6.00	8.41	6.21	19	12	6	0	0.78	
5	11	19	39	27	92	15	37	13	46	5.38	5.83	6.29	8.03	6.38	21	10	7	0	1.95	
0	0	24	47	6	9	37	67	7	16	6.09	5.74	5.80	6.87	6.12	20	11	7	0	2.21	
9	32	13	27	6	20	13	38	10	27	4.13	5.58	6.48	6.35	5.64	18	13	8	0	2.05	
17	53	30	72	0	0	9	15	4	6	4.61	5.22	5.70	7.61	5.78	21	10	3	0	3.67	
14	15	45	48	5	10	9	13	8	13	4.87	5.25	7.19	4.77	5.52	24	7	3	0	0.40	
26	70	22	58	6	19	17	37	9	24	3.64	4.29	3.83	4.29	4.01	15	16	8	0	5.00	
32	84	5	12	15	58	3	12	38	124	4.70	4.74	4.55	5.35	4.83	15	16	9	0	4.52	
14	33	7	17	10	34	6	18	25	59	6.03	6.00	5.77	7.51	6.33	21	10	9	0	3.65	
0	0	28	38	0	0	19	23	0	0	4.10	4.20	3.80	5.10	4.30	15	16	9	0	5.35	
11	13	12	23	11	12	6	8	8	9	2.55	2.48	2.09	3.03	2.54	7	24	10	0	5.16	
21	44	7	14	2	2	2	4	0	0	1.29	4.23	5.22	2.40	3.28	15	16	11	0	5.90	
18	18	45	55	3	5	0	0	4	4	5.20	6.00	5.50	3.80	5.12	15	16	10	0	3.55	
29	77	12	30	8	20	8	21	34	89	3.25	4.10	3.40	6.00	4.06	14	17	10	0	....	
21	42	4	11	2	3	6	7	34	80	4.87	5.45	5.54	6.58	8.61	18	13	10	0	5.73	
6	13	43	85	6	14	14	27	6	13	5.29	5.06	4.42	5.96	5.18	15	16	9	0	5.48	
7	9	13	20	15	18	19	39	30	52	6.45	6.64	6.19	6.67	6.48	21	10	10	0	5.05	
15	16	30	52	6	6	2	2	15	17	5.64	5.58	5.32	7.90	6.11	17	14	5	0	2.95	
0	0	15	64	19	64	24	50	21	47	4.00	4.42	5.64	7.26	5.33	20	11	6	0	0.94	
15	39	36	105	12	33	5	14	36	94	6.45	6.00	6.22	6.90	6.40	20	11	6	2	3.24	
15	20	14	15	13	20	17	25	21	26	7.75	7.96	7.80	6.51	7.50	25	6	6	1	4.04	
1	1	23	59	13	31	23	82	21	74	2.50	4.50	3.50	4.50	3.75	12	19	3	5	1.89	
22	78	20	82	21	78	8	31	25	108	2.64	2.96	3.03	3.77	3.10	8	23	5	6	2.62	
8	26	9	27	22	67	32	83	15	39	3.70	3.81	3.16	3.94	3.65	10	21	5	6	1.18	

MONTH OF MARCH, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady............	20.40	28.20	33.60	27.00	27.30	54	— 2	26.7	29.3	7	16	8	9	28	58
Fort Wilkins..........	22.45	26.87	30.41	24.25	25.99	50	2	24.0	24.0	16	55	12	30	12	27
Fort Winnebago.......	27.84	34.29	43.68	32.94	34.96	76	8	41.0	27.0	10	25	0	0	5	14
Fort Crawford	31.50	38.22	46.18	37.19	38.27	80	8	41.7	30.3	28	66	0	0	5	5
Fort Atkinson	28.16	36.06	42.45	32.93	34.90	77	4	42.1	30.9	37	94	3	7	2	7
Fort Snelling..........	27.80	34.38	42.48	33.64	34.57	79	3	44.4	31.6	8	10	7	10	16	17
Fort Leavenworth	35.58	42.96	54.67	44.54	44.44	82	23	37.6	21.4	14	27	7	7	0	0
Fort Des Moines.......	31.16	39.26	51.70	38.58	40.20	86	8	45.8	32.2	16	33	7	10	10	12

MONTH OF MARCH, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
14	29	1	3	7	33	31	69	28	110	2.80	3.80	2.50	4.20	3.30	10	21	3	8	2.29	
7	17	27	63	9	28	7	20	34	137	2.03	1.96	1.90	4.38	2.56	6	25	3	6	....	
14	55	7	24	11	44	31	115	19	60	5.06	5.19	4.42	6.29	5.24	19	12	4	3	3.10	
5	16	27	91	11	35	23	70	23	80	6.60	5.22	5.14	7.13	6.02	21	10	2	4	2.73	
18	55	13	36	21	87	9	33	21	78	5.64	5.32	5.29	7.74	5.99	19	12	3	5	1.96	
16	21	11	10	8	20	31	67	27	61	6.32	5.96	6.87	5.16	6.07	24	7	3	2	2.80	
10	30	26	109	17	44	7	13	43	97	6.06	7.19	7.26	7.61	7.03	24	7	3	0	0.73	
3	5	9	31	17	54	43	53	19	71	6.58	6.48	6.32	7.96	6.83	25	6	5	3	1.42	

MONTH OF APRIL, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	21.36	33.20	44.33	30.16	32.26	65	— 8	32.7	40.3	22	52	10	13	12	15
Hancock Barracks	28.30	37.83	46.83	36.93	37.47	71	7	33.5	30.5	23	81	7	13	9	21
Fort Sullivan	34.23	42.23	47.36	39.30	40.78	66	20	25.2	20.8	6	12	14	38	6	25
Fort Preble	36.60	42.10	44.60	39.50	40.70	65	27	24.3	13.7	6	17	6	16	6	14
Fort Constitution	37.86	42.60	47.00	40.60	42.01	73	26	31.0	16.0	4	7	23	46	9	17
Fort Adams	40.60	46.62	49.66	42.80	44.92	68	32	23.1	12.9	17	77	26	97	15	42
Fort Trumbull	38.34	46.73	51.60	43.56	45.06	73	30	27.9	15.1	12	34	19	67	9	34
Fort Hamilton	44.46	47.76	56.33	49.83	49.59	76	30	26.4	19.6	2	4	16	44	21	52
Fort Columbus	45.43	50.56	58.86	48.33	50.79	75	30	24.2	20.8	2	4	39	60	1	1
West Point	42.20	47.80	55.23	47.03	48.06	76	28	27.9	20.1	5	13	6	7	0	0
Watervliet Arsenal	41.63	50.43	55.10	46.20	48.34	78	26	29.7	12.3	0	0	5	10	0	0
Plattsburg Barracks	34.53	39.63	45.53	39.80	39.87	72	20	32.1	19.9	27	114	2	11	11	31
Madison Barracks	39.86	43.60	46.06	42.75	43.06	66	24	22.9	19.1	0	0	15	52	1	3
Fort Ontario	39.66	43.26	47.13	42.33	43.09	69	24	25.9	19.1	2	5	17	34	4	8
Fort Niagara	39.83	47.00	48.53	42.83	44.55	72	20	27.4	24.6	6	16	12	41	3	7
Buffalo Barracks	39.36	46.63	52.73	43.53	45.56	82	20	36.4	25.6	8	20	12	35	4	8
Alleghany Arsenal	44.10	53.36	65.06	51.86	53.59	82	16	28.4	37.6	5	10	17	23	5	5
Carlisle Barracks	48.10	52.70	61.46	54.20	54.11	82	28	27.9	26.1	0	0	0	0	29	30
Fort Mifflin	44.43	54.80	61.40	51.26	52.97	79	28	26.0	25.0	7	12	26	70	13	23
Fort McHenry	47.16	52.29	64.15	54.60	54.55	80	27	25.4	27.6	2	3	25	42	7	9
Fort Severn	48.83	54.70	63.43	55.43	55.60	82	28	26.4	27.6	16	53	11	31	1	4
Fort Monroe	54.60	57.96	63.66	58.10	58.58	86	32	27.4	26.6	6	9	20	37	8	4
Fort Johnston	63.15	64.10	74.30	64.21	66.44	82	31	15.6	35.4	4	9	10	39	22	65
Augusta Arsenal	60.93	69.43	80.10	71.73	70.55	90	38	19.4	32.6	2	6	1	2	7	15
Fort Moultrie	65.80	70.13	71.16	68.40	68.87	76	44	7.1	24.9	4	11	11	37	10	28
Oglethorpe Barracks	63.13	73.66	81.70	69.60	72.02	92	42	20.0	30.0	14	22	3	3	23	54
Fort Marion	65.83	74.17	77.23	69.17	71.60	83	61	11.4	10.6	4	13	14	52	28	71
Key West	73.40	79.53	80.46	74.83	77.05	85	70	7.9	7.1	15	48	8	12	52	149
Fort Brooke	68.26	72.27	80.23	74.90	73.91	86	58	12.1	15.9	10	16	20	33	15	16
Camp Barrancas	65.46	72.40	75.93	69.66	70.86	80	50	9.1	20.9	10	17	3	6	13	21
Mount Vernon Arsenal	62.13	71.43	82.23	66.16	70.49	92	42	21.5	28.5	0	0	27	76	3	8
Fort Pike	67.90	75.36	80.40	70.90	73.64	88	51	14.4	22.6	4	8	12	31	11	26
Fort Wood	67.58	75.44	79.42	71.44	73.49	88	54	14.5	19.5	12	14	1	1	29	32
New Orleans	65.97	76.33	79.23	69.47	72.75	86	52	13.2	20.8	14	15	3	3	36	36
Baton Rouge	61.90	72.11	81.80	68.15	70.99	89	48	18.0	23.0	3	6	11	35	51	88
Fort Jesup	61.10	66.16	79.12	68.17	68.64	88	38	19.4	30.6	0	0	6	9	8	14
Camp Salubrity	63.00	71.00	79.00	69.00	70.50	88	44	17.5	26.5	5	13	7	9	29	43
Fort Towson	57.63	68.10	78.66	66.40	67.70	90	34	22.3	33.7	5	7	7	11	23	30
Fort Washita	61.67	70.76	76.63	67.67	69.18	88	40	18.8	29.2	0	0	3	8	9	19
Fort Smith	57.26	70.93	81.53	65.56	68.82	90	31	21.2	37.8	2	2	5	6	35	45
Fort Gibson	61.63	67.68	76.72	67.82	68.46	88	37	19.5	31.5	2	2	19	20	5	6
Fort Scott	53.56	61.56	73.66	61.33	62.50	87	27	24.5	35.5	9	16	10	16	23	42
Jefferson Barracks	55.13	64.40	80.33	62.66	65.63	94	26	28.4	39.4	8	24	8	22	2	6
St. Louis Arsenal	50.00	59.96	72.26	61.76	60.99	88	22	27.0	39.0	20	27	11	14	13	14
Detroit Barracks	39.60	50.10	57.80	46.90	48.60	76	18	27.4	30.6	16	49	4	11	24	55
Fort Gratiot	39.83	42.53	52.09	43.53	44.49	77	20	32.5	24.5	3	10	38	145	3	9
Fort Mackinac	32.80	37.33	39.60	35.60	36.33	54	10	17.7	26.3	6	13	7	22	27	115

MONTH OF APRIL, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	4	26	32	6	6	23	47	13	26	5.66	5.74	4.40	6.10	5.48	18	12	3	8	1.06	
6	12	27	66	11	22	23	68	9	28	4.43	3.77	3.70	4.10	4.00	14	16	2	7	1.48	
6	16	9	27	23	71	13	38	26	90	5.03	5.20	5.10	6.43	5.44	17	13	3	4	2.53	
12	24	29	65	28	52	12	42	17	69	3.80	3.20	3.40	4.90	3.82	14	16	5	5	1.44	
5	11	19	51	12	20	13	22	26	101	3.46	3.46	4.23	4.66	3.95	13	17	7	6	1.15	
13	32	10	27	17	61	15	60	7	33	3.17	3.20	3.33	4.83	3.63	10	20	6	2	1.67	
7	25	10	29	24	71	12	34	27	99	3.43	3.93	4.43	5.06	4.21	13	17	9	2	3.00	
7	15	11	33	19	54	19	77	25	117	4.50	4.83	6.03	6.00	5.34	17	13	3	1	1.00	
20	41	0	0	15	34	3	12	40	106	3.66	4.06	4.40	4.46	4.14	14	16	7	2	1.22	
46	50	6	7	3	6	5	1	49	99	4.00	4.53	5.00	5.50	4.75	14	16	12	1	1.80	
9	28	37	121	6	24	30	89	35	140	....	....	....	....	....	15	15	9	2	3.25	
0	0	49	173	3	18	26	75	2	4	4.03	4.06	4.36	2.60	3.76	12	18	5	6	2.02	
16	51	7	28	40	147	4	17	37	164	2.66	2.66	2.13	1.56	2.25	3	27	9	4	2.04	
16	31	6	16	14	28	18	49	43	86	3.23	3.60	3.50	3.77	3.52	11	19	10	1	2.48	
13	42	15	34	17	53	31	84	23	86	2.93	3.43	3.63	4.26	3.56	9	21	10	1	2.07	
3	8	5	22	60	199	5	17	17	52	2.16	3.56	3.53	3.33	3.15	11	19	11	4	2.70	
4	6	11	16	14	32	27	77	37	133	5.16	6.06	4.96	6.10	5.57	20	10	7	0	2.51	
11	15	7	7	1	1	51	80	21	47	5.73	6.26	6.03	6.43	6.11	20	10	7	0	2.68	
2	3	16	35	20	53	20	52	16	32	4.00	4.83	5.66	6.03	5.13	18	12	6	1	4.50	
26	33	6	8	19	48	12	36	23	74	3.12	4.90	5.13	6.40	4.88	14	16	7	0	1.49	
9	27	16	49	22	70	8	22	24	88	4.06	5.03	5.86	6.16	5.28	19	11	8	1	2.25	
23	33	7	10	29	61	6	15	21	39	3.80	5.16	4.86	6.66	5.12	16	14	7	0	2.48	
7	19	12	30	50	195	11	24	2	5	5.60	6.60	7.70	5.20	6.28	23	8	6	0	0.48	
18	43	17	26	51	98	12	36	12	28	6.26	7.53	7.10	8.76	7.41	26	4	1	0	0.05	
9	19	25	74	32	85	19	35	10	17	6.13	7.56	7.70	9.30	7.67	29	1	2	0	0.10	
1	1	36	85	7	7	33	52	3	6	7.10	6.93	7.90	8.50	7.60	25	5	4	0	0.20	
26	73	8	16	6	15	15	28	0	0	6.53	7.97	8.20	8.07	7.69	27	3	4	0	0.60	
14	30	16	46	1	3	0	0	5	10	5.00	4.83	5.50	7.63	5.74	20	10	6	0	2.06	
5	5	36	28	15	23	9	13	10	13	5.29	7.30	8.36	5.63	6.64	26	4	1	0	0.20	
10	25	38	101	11	34	31	60	1	2	2.73	4.63	5.30	5.83	4.62	14	16	3	0	0.42	
51	132	0	0	20	78	2	9	17	54	4.76	4.66	5.66	6.20	5.32	16	14	6	0	1.79	
32	76	13	34	32	73	9	20	5	11	7.03	5.96	6.40	8.56	6.98	24	6	6	0	0.99	
0	0	64	75	0	0	11	11	0	0	4.80	4.80	4.90	6.40	5.22	17	13	6	0	1.42	
14	17	17	18	4	4	5	5	1	3	2.60	3.33	3.57	5.03	3.63	11	19	4	0	1.99	
28	46	9	12	9	18	9	17	0	0	1.28	7.40	7.40	2.27	4.58	20	10	11	0	4.80	
32	41	61	95	7	10	9	0	3	3	4.14	5.10	5.07	5.27	4.90	15	15	11	0	4.12	
59	95	4	5	6	9	4	5	3	10	4.25	3.85	4.00	7.00	4.78	16	14	9	0	....	
59	104	5	7	12	19	3	5	6	12	3.96	4.03	4.60	6.00	4.64	12	18	9	0	3.49	
1	2	64	121	10	24	22	68	1	2	3.70	3.73	4.03	5.66	4.28	10	20	14	0	5.04	
4	4	29	32	27	29	14	17	4	4	6.16	6.23	7.63	8.03	6.26	20	10	11	0	1.96	
43	54	23	32	18	23	6	7	4	5	3.60	5.56	6.00	5.13	5.07	14	16	6	0	8.08	
12	32	38	83	12	30	14	24	2	5	3.50	3.50	4.36	5.96	4.33	15	15	10	0	5.39	
17	37	29	95	27	92	12	32	17	35	5.16	6.06	5.63	6.16	5.75	20	10	13	0	1.71	
15	19	16	35	17	32	18	38	10	18	8.00	9.20	9.20	6.60	8.25	22	8	7	0	3.67	
4	12	18	52	5	16	36	109	4	17	2.30	3.80	4.20	5.60	3.98	12	18	10	0	3.29	
33	107	17	61	18	35	3	17	15	57	2.43	1.96	2.89	5.43	3.17	8	22	10	1	2.31	
7	21	8	24	18	59	36	116	11	31	3.83	3.67	3.80	5.90	4.30	12	18	11	3	0.71	

MONTH OF APRIL, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady............	28.50	37.50	42.30	34.00	35.57	54	3	18.4	32.6	3	13	2	6	41	113
Fort Wilkins..........	31.90	36.30	43.46	35.86	36.88	61	10	24.1	26.9	6	28	9	15	16	51
Fort Winnebago.......	41.13	49.26	57.90	45.30	48.40	77	14	28.6	34.4	8	21	3	10	10	29
Fort Crawford.........	44.23	52.25	60.19	53.60	52.57	81	18	28.4	34.6	31	46	0	0	2	2
Fort Atkinson.........	39.73	50.06	58.63	47.60	49.00	80	12	31.0	37.0	11	28	2	6	7	16
Fort Snelling..........	40.06	48.16	54.93	47.33	47.62	82	15	34.4	32.4	7	14	7	13	18	40
Fort Leavenworth.....	49.83	59.06	70.23	59.10	59.55	76	24	16.4	25.6	10	20	21	33	8	11
Fort Des Moines.......	43.06	50.06	64.74	51.33	52.30	84	18	31.7	34.3	7	22	1	3	6	9

MONTH OF APRIL, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
14	45	1	1	5	18	29	95	25	70	3.30	3.40	3.40	4.70	3.70	10	20	8	5	2.26	
13	52	15	62	9	33	22	82	30	131	3.13	2.66	4.26	5.06	3.77	8	23	5	6	....	
13	37	10	40	11	39	24	97	19	61	3.90	5.10	4.83	5.26	4.77	15	12	8	1	2.67	
5	18	50	82	0	0	17	50	7	23	5.30	4.12	4.25	5.10	4.69	15	15	7	0	3.36	
17	52	20	67	15	40	16	49	32	102	4.56	4.26	4.90	6.00	4.93	14	16	7	0	2.83	
22	45	7	8	11	16	25	66	23	51	5.53	5.93	5.63	4.06	5.28	14	16	13	0	3.15	
17	33	29	58	17	41	6	17	12	18	6.90	6.80	6.96	7.06	6.93	22	8	9	0	2.40	
4	12	5	10	29	30	48	67	20	30	5.90	5.43	6.60	6.76	6.17	19	11	10	0	3.83	

MONTH OF MAY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	33.41	47.22	55.67	41.67	44.49	80	20	35.5	24.5	38	75	4	5	7	7
Hancock Barracks	40.61	49.16	57.55	47.77	48.77	82	26	33.2	22.8	25	56	3	8	4	6
Fort Sullivan	42.79	48.00	54.19	43.29	47.07	70	31	22.9	16.1	7	19	13	44	4	8
Fort Preble	45.70	53.70	58.20	49.80	51.85	79	36	27.1	15.9	11	50	12	58	2	7
Fort Constitution	46.74	54.58	59.77	50.87	52.99	86	36	33.0	17.0	14	45	10	36	2	4
Fort Adams	49.19	55.90	58.32	50.80	53.55	72	40	18.4	13.6	19	91	14	63	0	0
Fort Trumbull	46.70	55.74	61.41	52.16	54.00	73	33	19.0	21.0	14	43	13	65	1	1
Fort Hamilton	52.64	58.19	64.88	57.61	58.33	79	40	20.7	18.3	11	51	38	128	2	6
Fort Columbus	54.35	60.64	69.64	57.55	60.54	88	33	27.5	27.5	3	11	22	53	0	0
West Point	50.68	57.93	65.54	57.03	57.79	89	39	31.2	18.8	16	43	6	10	0	0
Watervliet Arsenal	50.48	56.19	64.35	52.42	55.86	84	35	28.1	17.9	19	87	0	0	0	0
Plattsburg Barracks	43.41	50.03	60.38	51.83	51.41	86	30	34.6	21.4	19	62	0	0	14	52
Madison Barracks	45.03	51.06	55.93	50.96	50.74	76	31	25.3	19.7	1	3	6	22	1	3
Fort Ontario	44.16	49.45	55.64	49.71	49.74	84	31	34.3	18.7	1	3	21	58	1	1
Fort Niagara	48.54	56.58	61.87	53.00	55.00	82	38	27.0	17.0	12	31	10	27	0	0
Buffalo Barracks	45.16	53.58	59.96	50.16	52.21	79	29	26.8	23.2	14	37	7	19	2	7
Alleghany Arsenal	47.80	59.48	70.09	56.00	58.34	86	32	27.7	26.3	26	66	16	31	7	8
Carlisle Barracks	56.41	61.12	69.32	62.83	62.42	83	42	20.6	20.4	7	11	0	0	25	56
Fort Mifflin	53.80	64.06	69.45	56.06	60.84	82	38	21.2	22.8	15	43	8	17	8	11
Fort McHenry	54.50	60.30	66.26	61.16	60.55	84	39	23.4	21.6	15	40	12	37	7	6
Fort Severn	57.22	63.16	68.03	61.70	62.50	81	45	18.5	17.5	18	64	2	6	0	0
Fort Monroe	61.00	68.10	69.58	65.09	65.94	84	45	18.1	20.9	4	8	8	20	13	33
Fort Johnston	65.28	71.14	78.28	68.28	70.74	91	43	20.3	27.7	16	49	10	37	4	5
Augusta Arsenal	65.36	72.46	81.03	73.00	72.96	90	52	17.0	21.0	4	6	9	23	12	16
Fort Moultrie	70.35	73.19	74.16	72.03	72.43	84	54	11.6	18.4	10	35	17	54	19	56
Oglethorpe Barracks	66.71	75.97	81.48	70.51	73.67	90	52	16.3	21.7	29	50	2	2	34	63
Fort Marion	68.48	75.39	75.87	72.06	72.95	86	58	13.0	15.0	7	19	28	95	18	49
Key West	75.48	80.29	81.64	77.12	78.63	86	73	7.4	5.6	26	60	3	9	49	124
Fort Brooke	70.14	74.61	80.09	76.12	75.24	86	62	10.8	13.2	30	24	22	37	5	20
Camp Barrancas	68.13	76.12	78.12	71.80	73.54	86	56	12.5	17.5	24	47	1	2	15	36
Mount Vernon Arsenal	63.70	77.06	83.45	70.16	73.59	93	50	19.4	23.6	0	0	22	72	3	12
Fort Pike	70.29	78.19	81.77	73.58	75.96	90	58	14.0	18.0	9	10	19	40	19	48
Fort Wood	71.13	78.13	80.58	73.21	75.76	94	66	18.2	9.8	19	19	2	2	34	40
New Orleans	66.90	75.93	79.26	70.71	73.20	85	57	11.8	16.2	32	33	7	8	29	35
Baton Rouge	63.20	76.00	84.28	72.11	73.90	92	52	18.1	21.9	1	1	18	36	58	91
Fort Jesup	61.16	70.12	81.50	69.20	70.49	91	50	20.5	20.5	3	6	13	23	24	43
Camp Salubrity	65.00	74.00	81.00	72.00	73.00	90	56	17.0	17.0	27	37	19	20	52	58
Fort Towson	59.09	68.35	79.61	66.90	68.49	90	50	21.5	18.5	15	25	20	32	32	49
Fort Washita	62.03	70.48	77.03	67.45	69.25	88	50	18.7	19.3	2	4	7	14	7	12
Fort Smith	58.50	71.50	80.50	63.50	68.50	93	48	24.5	20.5	5	9	4	6	66	81
Fort Gibson	61.12	67.62	73.72	65.61	67.02	84	51	17.0	16.0	6	6	22	23	8	8
Fort Scott	54.91	66.90	74.91	63.32	65.01	85	42	20.0	23.0	31	54	11	18	13	25
Jefferson Barracks	57.41	64.88	79.80	65.35	66.86	92	43	25.1	23.9	15	39	19	49	2	5
St. Louis Arsenal	49.03	60.41	75.41	62.00	61.71	86	36	24.3	25.7	20	21	18	23	15	17
Detroit Barracks	43.20	56.10	69.00	53.30	55.40	84	31	28.6	24.4	25	64	6	16	10	23
Fort Gratiot	42.70	54.67	60.41	50.93	52.18	86	32	33.8	20.2	18	88	28	107	4	12
Fort Mackinac	42.87	49.55	53.30	45.39	47.78	72	27	24.2	20.8	19	41	2	4	7	22

MONTH OF MAY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		E.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
6	6	19	28	9	11	30	55	7	14	4.19	5.00	4.29	4.90	4.60	17	14	12	3	2.63	
6	23	25	77	19	61	20	44	18	62	3.84	3.68	3.16	4.03	3.68	14	17	12	2	2.51	
3	10	18	59	35	111	11	33	23	64	4.00	4.45	3.12	5.09	4.17	14	17	8	1	5.17	
3	6	29	81	33	75	14	39	10	21	3.80	4.00	4.50	4.60	4.22	13	18	8	1	3.14	
7	12	30	74	15	40	15	31	18	49	4.33	5.12	5.32	5.48	5.19	20	11	9	1	3.15	
3	10	7	13	45	152	25	78	11	29	3.87	3.80	3.80	4.73	4.05	14	17	11	0	3.22	
4	12	16	41	42	127	10	27	24	73	4.80	4.90	4.41	5.00	4.77	17	14	14	0	2.89	
3	7	13	35	30	98	15	66	12	50	5.32	5.76	5.89	6.79	5.69	20	11	6	0	1.47	
16	34	5	20	26	47	10	25	42	96	4.58	5.22	5.29	4.39	4.87	17	14	7	0	1.75	
22	31	11	14	25	31	6	16	38	70	4.84	5.03	5.06	6.42	5.33	17	14	10	0	4.10	
4	8	32	135	14	28	34	103	20	84	....	....	....	....	....	18	13	9	0	5.02	
2	5	61	204	2	9	25	78	1	5	5.09	5.48	5.16	3.38	4.77	17	14	11	0	1.83	
19	64	4	13	56	114	3	16	34	146	5.51	4.29	4.74	3.90	4.36	14	17	14	1	4.16	
3	5	5	10	44	86	26	58	23	55	4.51	5.22	4.90	5.09	4.93	16	15	8	0	2.39	
8	17	19	61	25	82	19	63	31	118	5.54	5.93	6.32	5.32	5.77	18	13	5	0	2.57	
4	11	10	52	65	231	3	9	20	71	4.38	5.25	5.41	5.06	5.07	18	13	9	1	1.78	
0	0	5	19	16	43	32	56	22	62	5.48	5.83	5.80	6.70	5.70	21	10	10	0	1.18	
7	8	3	3	3	3	64	77	15	28	5.45	6.58	5.87	6.83	7.43	21	10	8	0	4.03	
3	6	22	41	34	74	17	22	17	41	3.96	4.74	5.06	5.29	4.76	13	18	8	0	4.30	
19	30	5	14	32	75	13	24	21	59	3.70	4.10	4.20	5.30	4.32	13	18	9	0	2.36	
8	26	27	97	22	51	13	27	27	104	4.32	5.06	5.22	5.48	5.02	18	13	12	0	3.24	
20	32	8	17	36	69	15	34	20	65	3.35	4.48	5.64	6.00	4.86	18	13	11	0	7.70	
18	52	11	31	42	147	15	40	5	14	5.12	5.20	6.21	5.17	5.42	21	10	12	0	3.94	
24	47	5	7	44	71	12	25	14	32	5.60	7.03	5.08	7.30	6.25	20	11	3	0	1.07	
10	30	28	96	19	63	12	31	9	23	5.06	5.00	5.87	7.12	5.76	20	11	9	0	6.53	
2	5	34	75	0	0	21	37	2	4	7.90	5.83	5.90	7.64	6.81	24	7	8	0	5.30	
27	69	10	22	16	26	3	6	5	10	5.77	6.35	5.39	6.61	6.03	21	10	9	0	2.63	
9	23	17	29	3	5	3	9	6	16	5.67	5.61	6.58	7.00	6.21	23	8	9	0	4.33	
5	9	29	29	13	20	6	7	14	21	5.74	6.19	5.74	5.87	5.88	18	13	8	0	4.03	
8	22	37	92	14	41	22	41	1	2	4.61	5.38	4.83	3.54	4.59	20	11	10	0	3.69	
37	98	8	25	17	46	0	0	37	112	5.70	5.22	4.61	6.42	5.48	17	14	7	0	2.54	
26	52	1	1	25	58	7	12	13	39	8.45	6.90	7.19	8.29	7.71	26	5	9	0	2.69	
0	0	50	54	1	1	13	18	1	2	5.30	5.50	4.80	6.00	5.40	19	12	13	0	7.31	
10	12	12	17	3	4	2	4	6	8	4.39	5.58	4.00	5.87	4.96	17	14	13	0	8.06	
21	30	5	7	6	12	13	19	2	2	2.21	8.25	8.30	3.22	5.49	24	7	10	0	3.10	
18	23	18	28	16	29	5	7	9	17	4.25	4.40	4.19	6.12	4.74	17	14	7	0	4.43	
4	4	1	2	2	2	5	8	6	8	5.20	4.80	6.00	7.00	5.75	22	9	8	0	....	
35	76	3	11	9	22	1	2	9	20	6.12	6.19	6.29	7.64	6.56	24	7	7	0	5.17	
1	2	60	121	1	2	42	75	4	8	4.45	4.45	4.22	5.58	4.67	14	17	9	0	4.50	
0	0	20	22	5	6	14	14	10	12	5.48	6.54	6.29	6.51	6.20	22	9	7	0	3.67	
65	71	16	17	2	2	1	1	4	5	4.32	4.90	4.39	6.48	5.02	18	13	3	0	2.01	
15	35	35	69	3	6	16	29	0	0	2.91	3.06	3.61	5.90	3.87	16	15	7	0	8.16	
14	30	38	109	14	34	4	8	18	48	4.45	4.51	4.25	7.45	5.16	19	12	4	0	2.35	Therm. protected.
17	19	17	18	17	20	8	13	12	13	7.32	8.64	8.90	7.41	8.07	25	6	4	0	3.05	
3	9	21	51	16	48	28	78	0	0	4.80	6.10	5.70	7.50	6.02	21	10	4	0	1.03	
39	118	13	49	12	42	1	2	9	34	4.48	4.25	4.64	6.32	4.92	15	16	9	1	1.83	
1	2	9	23	25	81	44	153	17	44	6.68	6.10	6.30	6.48	6.39	18	13	6	0	0.92	

MONTH OF MAY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady	26.30	49.40	57.80	44.60	44.52	84	25	39.5	19.5	7	22	6	10	18	30
Fort Wilkins	43.67	50.22	59.00	46.32	44.80	88	31	43.2	13.8	17	65	12	46	3	6
Fort Winnebago	46.26	58.90	68.68	55.80	57.41	85	32	27.6	25.4	21	57	3	10	0	0
Fort Crawford	51.12	62.00	70.87	60.06	61.01	86	35	25.0	26.0	40	60	7	9	5	8
Fort Atkinson	47.51	61.16	69.00	57.00	58.67	84	32	25.3	26.7	13	26	13	32	3	9
Fort Snelling	51.64	62.06	69.12	60.51	60.83	86	38	25.2	22.8	9	20	4	4	13	19
Fort Leavenworth	54.22	64.25	72.38	62.32	63.29	84	41	20,7	22.3	6	8	20	23	14	24
Fort Des Moines	48.00	59.11	72.20	57.14	59.11	80	28	20.9	31.1	13	13	0	0	29	44

MONTH OF MAY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
13	21	5	14	12	45	37	104	26	98	6.10	5.90	5.40	6.90	6.00	20	11	8	0	2.19	
9	36	25	101	16	71	31	118	11	50	5.87	5.32	5.38	5.64	5.55	18	13	4	3	....	
5	17	29	93	10	36	15	48	15	55	7.13	6.97	5.94	7.29	6.83	23	8	4	0	1.46	
8	8	43	54	7	8	3	4	11	23	7.45	6.77	6.00	5.93	6.54	22	9	4	0	2.40	
4	15	8	35	34	92	20	53	29	81	6.83	6.87	6.25	7.58	6.88	22	9	5	0	3.23	
31	61	15	28	16	25	20	31	16	26	5.87	6.93	7.74	4.35	6.22	22	9	8	0	1.51	
39	66	15	22	18	40	3	6	9	12	6.77	7.22	6.77	7.41	7.04	25	6	5	0	2.30	
6	11	30	89	11	35	30	42	5	16	6.20	6.11	5.11	7.40	6.20	22	9	7	0	1.61	

MONTH OF JUNE, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	44.50	62.03	68.76	54.66	57.49	84	33	26.5	24.5	10	21	4	4	7	10
Hancock Barracks	49.07	61.23	70.06	59.70	60.01	89	39	29.0	21.0	5	9	6	15	5	11
Fort Sullivan	50.33	59.73	64.63	55.10	57.45	85	45	27.5	12.5	2	4	6	21	2	9
Fort Preble	55.10	64.80	68.40	60.80	62.27	80	44	17.7	18.3	6	16	2	5	6	19
Fort Constitution	49.00	63.83	70.86	61.43	61.28	91	45	29.7	16.3	2	3	6	18	3	9
Fort Adams	59.33	67.80	69.43	60.90	64.36	80	50	15.6	14.4	3	7	8	26	6	29
Fort Trumbull	56.50	67.53	74.80	61.80	65.16	90	42	24.8	25.2	6	18	8	24	3	13
Fort Hamilton	62.53	68.00	75.73	68.66	68.73	94	48	25.3	20.7	5	17	19	58	8	22
Fort Columbus	64.50	71.00	81.46	68.26	71.30	94	52	22.7	19.3	2	6	13	24	3	6
West Point	61.29	69.86	77.60	67.48	69.06	93	50	23.9	19.1	6	10	5	7	2	4
Watervliet Arsenal	62.60	71.60	78.33	64.70	69.31	91	52	21.7	17.3	4	9	2	4	0	0
Plattsburg Barracks	55.90	63.53	73.16	62.66	63.81	88	46	24.2	17.8	14	35	1	1	8	19
Madison Barracks	55.43	63.66	67.73	61.20	62.00	76	46	14.0	16.0	1	3	8	25	2	3
Fort Ontario	56.73	62.53	66.33	61.73	61.83	89	46	27.2	15.8	0	0	16	38	2	3
Fort Niagara	58.40	66.30	70.63	64.73	65.01	86	50	21.0	15.0	10	20	15	47	6	8
Buffalo Barracks	56.56	67.20	73.64	61.60	64.75	84	43	19.2	21.8	5	10	10	28	1	4
Alleghany Arsenal	60.50	68.53	80.03	67.43	69.12	93	40	23.9	29.1	5	12	8	8	8	11
Carlisle Barracks	70.73	75.63	80.80	76.66	75.95	90	48	14.0	28.0	0	0	0	0	36	37
Fort Mifflin	63.36	74.53	80.16	69.00	71.76	96	48	24.2	23.8	6	15	12	19	14	24
Fort McHenry	64.40	71.18	81.20	70.29	71.77	94	45	22.2	26.8	5	10	31	44	7	16
Fort Severn	68.10	74.00	78.73	72.56	73.35	92	56	18.6	17.4	5	12	9	32	4	10
Fort Monroe	72.13	76.13	81.23	75.73	76.30	92	54	15.7	22.3	1	1	9	22	15	38
Fort Johnston	73.40	80.50	86.12	77.17	79.30	94	52	14.7	27.3	0	0	7	23	14	38
Augusta Arsenal	76.83	83.26	90.96	82.83	83.47	100	62	16.5	21.5	6	6	0	0	3	3
Fort Moultrie	77.10	82.10	83.50	79.98	80.67	92	63	11.3	17.7	0	0	5	17	13	44
Oglethorpe Barracks	72.46	84.50	90.36	78.30	81.40	102	54	20.6	27.6	16	16	1	4	25	43
Fort Marion	74.93	82.03	84.00	78.60	79.89	92	70	12.1	9.9	0	0	5	18	20	56
Key West	77.50	82.70	83.46	79.06	80.68	90	74	9.3	6.7	5	13	4	12	79	217
Fort Brooke	74.63	79.16	84.36	80.10	79.56	88	64	8.4	15.6	4	4	10	23	26	30
Camp Barrancas	74.66	81.73	83.06	77.60	79.26	88	70	8.7	9.3	7	7	0	0	11	35
Mount Vernon Arsenal	71.50	83.13	89.76	75.93	80.08	96	62	15.9	18.1	0	0	10	38	1	2
Fort Pike	77.06	85.30	88.06	79.93	82.59	92	72	9.4	10.6	2	4	8	15	8	19
Fort Wood	75.12	83.52	86.08	78.32	80.76	96	72	15.2	8.8	10	13	1	1	25	31
New Orleans	73.27	81.07	85.85	77.64	79.46	91	67	11.5	12.5	4	4	1	1	42	54
Baton Rouge	70.13	82.10	90.18	76.80	79.80	96	66	16.2	13.8	0	0	4	11	53	70
Fort Jesup	72.17	78.15	84.23	75.10	77.41	90	64	12.6	13.4	1	2	0	0	4	6
Camp Salubrity	72.00	81.00	88.00	79.00	80.00	95	68	15.0	12.0	4	4	13	14	66	82
Fort Towson	70.33	77.26	85.66	76.00	77.31	92	64	14.7	13.3	3	4	5	6	24	38
Fort Washita	70.80	79.00	87.03	76.70	78.38	94	65	15.6	23.4	0	0	0	0	6	12
Fort Smith	68.26	84.60	92.50	72.07	78.61	98	58	19.4	20.6	0	0	3	3	42	47
Fort Gibson	72.11	77.22	83.69	76.00	77.25	88	67	10.7	10.3	1	1	2	4	2	2
Fort Scott	64.26	71.66	81.80	71.20	72.23	90	52	17.8	20.2	15	27	7	13	23	43
Jefferson Barracks	73.40	79.36	84.03	73.70	77.62	98	58	20.4	19.6	8	25	9	24	2	4
St. Louis Arsenal	65.43	73.60	82.50	72.46	73.50	94	54	20.5	19.5	7	8	16	16	20	20
Detroit Barracks	56.10	67.50	76.60	64.50	66.17	88	38	21.8	28.2	30	72	5	12	12	31
Fort Gratiot	54.73	65.50	71.70	60.80	63.18	88	38	24.8	25.2	4	17	36	117	7	15
Fort Mackinac	51.90	58.30	61.65	54.57	56.60	76	40	19.4	16.6	10	21	8	18	16	49

MONTH OF JUNE, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	10	14	21	4	6	34	72	31	86	5.70	4.90	4.46	5.90	5.24	17	13	13	0	1.36	
2	4	25	62	24	55	28	107	20	59	4.70	4.23	4.13	4.63	4.42	13	17	10	0	2.10	
7	25	21	67	21	75	24	71	24	66	4.66	5.66	4.70	6.33	5.34	17	13	9	0	2.00	
3	9	26	77	42	83	22	64	9	16	4.40	5.20	5.90	6.50	5.50	19	11	5	0	1.56	
0	0	37	73	13	32	29	72	23	71	4.93	6.53	6.90	6.53	6.22	24	6	9	0	1.89	
4	10	3	9	46	147	31	89	19	51	3.66	4.90	6.00	5.40	4.99	14	16	12	0	2.31	
1	5	14	35	47	124	12	26	29	83	4.13	5.66	6.13	5.73	5.41	18	12	11	0	3.05	
5	13	21	60	42	130	9	32	11	34	5.63	6.50	7.40	8.03	6.89	23	7	10	0	3.60	
18	44	6	19	35	54	6	16	37	58	5.00	5.50	4.96	4.73	5.02	17	13	11	0	3.70	
22	30	21	26	22	27	9	12	33	50	5.59	5.83	5.70	5.20	5.58	17	13	14	0	1.82	
3	8	53	140	14	34	37	116	5	10	....	....	....	....	....	24	6	7	0	2.09	
1	5	59	154	4	5	33	109	0	0	6.23	6.06	5.53	4.33	5.53	19	11	9	0	2.15	
22	64	2	4	68	243	8	34	9	29	4.73	5.66	4.70	4.06	4.78	13	17	11	0	1.85	
8	16	5	10	37	85	33	87	19	38	5.30	5.26	5.03	4.25	4.96	18	12	10	0	4.73	
10	20	18	55	31	105	23	57	7	23	4.16	5.03	5.10	2.86	4.28	13	17	7	0	1.16	
8	17	11	31	61	195	7	21	11	31	4.53	4.63	4.40	5.60	4.79	17	13	14	0	1.96	
5	7	19	24	21	63	38	74	26	71	3.00	4.13	4.10	4.96	4.02	12	18	15	0	4.04	
3	3	0	0	7	8	52	64	22	24	4.96	5.30	4.63	5.83	5.18	17	13	8	0	10.45	
7	11	17	35	30	56	23	34	11	20	4.20	5.46	4.26	5.00	4.73	16	14	13	0	9.00	
18	27	1	3	32	53	14	24	12	27	4.70	4.10	3.15	4.16	4.02	12	18	9	0	2.93	
15	44	26	91	9	24	13	27	22	73	5.50	5.56	5.30	6.03	5.60	20	10	10	0	6.94	
29	56	5	11	35	78	8	16	18	35	6.03	6.33	5.00	6.13	5.87	19	11	11	0	6.06	
3	8	20	59	60	223	13	34	0	0	6.15	7.24	8.90	6.30	7.15	22	8	5	0	1.61	Inaccurate.
20	28	24	27	33	36	21	23	13	19	5.13	6.66	5.66	6.86	6.07	23	7	5	0	1.20	
11	32	38	134	28	101	24	84	1	4	6.43	7.16	6.70	7.50	6.99	26	4	8	0	2.19	
3	3	40	80	2	2	31	46	2	3	8.50	5.70	6.56	6.10	6.71	23	7	9	0	2.37	
39	113	11	20	16	21	9	18	3	6	5.67	7.03	6.63	6.23	6.39	24	6	5	0	0.59	
19	51	10	26	0	0	1	1	2	3	4.60	4.53	4.73	6.20	4.76	18	12	10	0	6.07	
11	12	22	24	5	9	40	47	2	5	4.43	3.03	2.86	6.03	5.83	11	19	9	0	4.51	
8	27	46	116	13	32	32	47	1	2	4.20	4.93	5.03	5.50	4.92	20	10	4	0	1.37	
46	129	3	10	43	130	0	0	17	59	6.33	5.20	3.90	6.30	5.43	22	8	8	0	2.19	
38	100	15	36	29	62	8	19	6	12	8.00	7.63	7.36	8.06	7.79	25	5	3	0	0.73	
0	0	52	58	13	13	17	17	0	0	6.40	5.30	4.70	6.80	5.80	25	5	3	0	0.95	
23	23	14	14	1	1	0	0	4	5	5.48	4.58	5.07	6.86	5.50	19	11	6	0	3.20	
18	27	4	4	16	19	25	38	0	0	4.20	9.13	8.60	4.00	6.45	28	2	8	0	4.40	
24	40	42	64	22	41	2	3	0	0	5.27	4.24	4.50	6.11	5.03	20	11	9	0	1.43	
10	16	3	4	6	6	11	13	1	1	8.00	5.00	6.00	7.00	6.50	21	9	10	0	....	
47	96	22	65	12	36	1	1	6	11	5.13	5.53	6.60	8.46	6.43	24	6	8	0	6.35	
2	5	86	165	2	5	24	44	0	0	4.33	4.66	5.10	5.93	5.00	16	14	7	0	2.62	
3	4	53	66	11	13	6	7	2	2	5.29	4.67	6.23	8.50	6.17	23	7	4	0	2.85	
47	51	48	63	9	11	1	2	10	10	3.50	3.83	5.03	5.90	4.56	12	18	4	0	2.18	
10	20	49	109	12	23	4	8	0	0	1.40	2.66	3.63	3.53	2.80	9	21	21	0	24.56	
26	64	51	145	18	51	1	5	5	13	2.53	3.23	2.53	5.13	3.35	7	23	15	0	9.78	
12	12	19	24	20	23	20	23	6	8	6.46	7.13	7.86	6.43	6.97	20	10	17	0	13.75	
4	10	8	20	14	41	29	75	1	2	2.70	4.40	3.20	5.20	3.87	11	19	6	0	2.30	
26	71	18	50	15	50	5	17	9	31	3.16	3.13	2.23	3.60	3.05	6	24	13	0	2.73	
5	8	10	18	34	139	28	77	9	15	5.87	5.80	4.83	5.63	5.53	19	11	9	0	1.26	

MONTH OF JUNE, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brady..............	45.60	61.10	66.60	51.80	56.27	82	34	25.7	22.3	7	10	5	5	24	50
Fort Wilkins............	50.76	56.76	62.37	53.53	55.85	76	42	20.1	13.9	8	15	7	15	0	0
Fort Winnebago.......	55.63	68.70	74.83	67.13	66.57	87	41	20.4	25.6	5	8	3	6	3	9
Fort Crawford.........	60.50	69.20	75.28	67.30	68.07	86	50	17.9	18.1	0	0	1	1	1	1
Fort Atkinson	57.06	69.56	75.80	62.96	66.34	88	46	21.7	20.3	4	13	9	28	8	25
Fort Snelling..........	60.60	68.60	75.06	66.30	67.64	87	51	19.4	16.6	3	6	3	3	7	8
Fort Leavenworth	64.60	70.13	76.36	70.00	70.27	80	52	9.7	18.3	4	5	20	22	7	14
Fort Des Moines.......	59.20	68.60	78.16	66.00	67.99	90	40	22.0	28.0	3	7	2	3	26	28

MONTH OF JUNE, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	38	3	3	6	29	41	95	22	59	5.30	5.00	4.20	5.60	5.00	17	13	10	0	1.43	
21	86	24	89	18	88	35	111	7	21	5.03	4.63	4.80	5.46	4.98	15	15	10	0	....	
9	31	14	44	10	30	20	69	3	9	4.76	4.36	3.53	5.10	4.44	15	15	8	0	4.09	
19	39	13	14	26	36	16	21	35	43	3.14	3.23	5.21	6.10	4.42	18	12	6	0	5.50	
7	24	7	25	12	34	21	59	52	118	4.66	3.03	4.46	6.90	4.76	14	16	13	0	7.48	
31	52	14	14	27	28	25	42	10	14	5.10	6.03	6.33	4.13	5.36	17	13	14	0	6.80	
25	42	42	71	9	13	3	3	10	15	3.66	4.10	5.10	4.33	4.29	14	16	16	0	15.80	
22	30	16	50	6	17	27	32	18	19	4.10	3.20	3.23	4.23	3.69	11	19	14	0	5.50	

MONTH OF JULY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	53.48	64.48	69.64	59.32	61.73	90	36	28.3	25.7	7	15	10	12	9	10
Hancock Barracks	55.87	64.42	70.42	60.97	62.92	89	43	26.1	19.9	7	15	5	15	13	20
Fort Sullivan	55.38	61.35	66.48	57.74	60.24	86	48	25.8	12.2	7	11	2	6	5	16
Fort Preble	60.10	67.30	70.90	63.80	65.52	83	54	17.5	11.5	5	10	1	4	4	11
Fort Constitution	61.00	69.74	74.58	66.12	67.86	91	52	23.1	15.9	3	8	9	21	3	5
Fort Adams	66.22	75.71	77.13	68.26	71.83	90	54	18.2	17.8	10	28	8	27	1	5
Fort Trumbull	62.29	72.45	78.83	67.35	70.23	90	49	19.8	21.2	14	30	1	6	0	0
Fort Hamilton	67.80	74.06	81.42	74.64	74.48	99	51	24.5	23.5	21	76	15	40	3	8
Fort Columbus	69.13	77.51	85.48	74.29	76.60	99	54	22.4	22.6	1	3	6	11	0	0
West Point	67.29	75.19	81.68	73.29	74.36	96	53	21.6	21.4	3	4	8	9	0	0
Watervliet Arsenal	68.16	76.55	84.19	69.13	74.51	98	52	23.5	22.5	3	8	0	0	0	0
Plattsburg Barracks	59.74	68.00	75.93	66.00	67.42	92	50	24.6	17.4	15	43	0	0	16	26
Madison Barracks	60.25	68.22	72.87	66.19	66.88	85	50	18.1	16.9	0	0	10	24	1	1
Fort Ontario	62.29	68.80	73.09	65.58	67.44	87	48	19.6	19.4	3	8	7	15	3	4
Fort Niagara	64.90	70.87	76.83	69.74	70.58	92	52	21.4	18.6	12	31	12	28	3	3
Buffalo Barracks	61.25	72.70	79.22	69.27	70.61	92	47	21.4	23.6	3	10	8	11	1	1
Alleghany Arsenal	62.80	71.93	81.48	68.19	70.60	96	48	25.4	22.6	10	15	10	10	0	0
Carlisle Barracks	75.06	79.80	86.38	80.16	80.35	98	66	17.6	14.4	0	0	1	1	11	14
Fort Mifflin	68.29	80.77	84.90	72.35	76.58	97	54	20.4	22.6	6	9	7	10	5	12
Fort McHenry	67.19	76.11	85.30	75.70	76.07	97	55	20.9	21.1	23	43	8	16	3	4
Fort Severn	72.35	78.45	82.83	77.25	77.72	95	63	17.3	14.7	12	45	4	14	1	2
Fort Monroe	73.70	78.96	85.06	78.35	79.02	96	65	19.0	14.0	4	8	9	16	17	38
Fort Johnston	77.50	84.60	88.26	80.70	82.76	95	71	12.2	11.8	2	6	1	2	24	64
Fort Moultrie	79.41	83.88	85.67	82.40	82.84	92	76	9.2	6.8	4	15	9	28	15	52
Augusta Arsenal	81.48	85.96	94.93	87.54	87.48	103	72	15.5	15.5	9	11	18	20	0	0
Oglethorpe Barracks	77.77	83.74	88.51	82.55	83.14	97	76	13.9	7.1	18	18	0	0	20	33
Fort Marion	78.50	84.84	86.87	81.09	82.82	92	74	9.2	8.8	3	5	8	16	24	59
Key West	79.35	85.67	87.87	81.19	83.52	91	77	7.5	6.5	5	13	7	15	24	60
Fort Brooke	75.62	80.93	83.83	79.32	79.42	88	73	8.6	6.4	3	3	9	21	11	11
Barrancas Barracks	76.96	83.87	85.16	79.61	81.40	98	70	16.6	11.4	14	14	0	0	6	9
Mount Vernon Arsenal	74.26	83.93	88.64	78.61	81.36	98	68	16.6	13.4	0	0	2	6	0	0
Fort Pike	79.25	86.48	88.38	81.77	83.97	96	70	12.0	14.0	8	10	6	12	2	3
Fort Wood	76.48	85.54	88.23	80.17	82.60	98	72	15.4	10.6	37	48	3	3	8	8
Camp Pass Christian	77.29	83.97	88.93	80.61	82.70	95	68	12.3	14.7	3	3	2	3	1	1
Baton Rouge	71.70	83.00	90.83	78.14	80.92	99	66	18.1	14.9	0	0	2	9	59	96
Fort Jesup	74.10	78.20	91.10	81.00	81.10	97	64	15.9	17.1	1	1	11	14	11	18
Fort Towson	71.96	81.25	91.80	81.35	81.59	102	58	20.4	23.6	12	24	7	10	32	55
Fort Washita	73.16	84.77	97.74	81.58	84.31	106	62	21.7	22.3	5	10	0	0	10	15
Fort Smith	68.25	85.80	95.00	80.83	82.47	100	58	17.5	24.5	2	2	2	2	43	51
Fort Gibson	75.14	83.31	92.41	82.34	83.30	99	56	15.7	27.3	5	5	13	14	2	2
Fort Scott	68.19	79.54	89.45	76.19	78.34	98	53	19.7	25.3	2	7	9	12	15	30
Jefferson Barracks	72.93	79.51	89.03	77.93	79.85	100	62	20.1	17.9	14	34	14	20	6	8
St. Louis Arsenal	69.28	78.19	89.83	80.00	79.32	99	60	19.7	19.3	7	13	11	10	10	12
Detroit Barracks	59.50	73.70	79.80	70.70	70.92	90	41	17.1	29.9	25	56	3	6	13	24
Fort Gratiot	57.20	71.61	84.12	65.16	69.52	96	43	26.5	26.5	4	13	42	140	2	4
Fort Mackinac	59.30	65.06	69.52	62.71	64.15	80	43	15.8	21.2	10	27	4	11	12	32
Fort Brady	52.20	64.80	70.50	57.30	61.20	92	40	30.8	21.2	8	8	12	20	22	14

MONTH OF JULY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	15	26	32	10	15	23	45	23	58	2.67	2.64	2.38	3.74	2.86	7	24	20	0	7.72	
15	39	28	58	20	45	18	37	16	41	2.77	2.64	2.84	2.48	2.68	8	23	22	0	8.86	
13	37	29	79	12	23	9	22	21	55	1.90	2.19	2.83	2.96	2.47	8	23	13	0	6.51	
2	3	41	96	31	52	20	38	17	37	3.30	3.70	3.90	4.00	3.72	13	18	12	0	5.86	
6	9	37	87	10	23	22	59	22	52	4.32	5.48	5.51	4.90	5.05	19	12	10	0	7.33	
4	12	5	12	42	124	35	96	19	45	4.03	4.80	4.29	5.80	4.73	17	14	9	0	2.78	
3	14	21	54	42	119	23	51	20	52	5.58	5.38	5.41	5.77	5.53	21	10	9	0	3.69	
4	8	11	31	40	134	16	62	14	55	6.45	7.58	6.64	7.96	7.15	23	8	5	0	1.95	
18	49	7	26	26	54	26	53	40	72	5.48	6.12	5.00	4.25	5.21	18	13	4	0	1.75	
24	28	13	16	16	22	13	14	47	76	7.42	6.84	5.38	6.77	6.60	26	5	9	0	2.38	
3	6	36	89	26	55	42	101	15	38	....	....	....	....	....	22	9	7	0	3.31	
0	0	46	103	0	0	47	121	0	0	4.93	5.67	5.87	3.96	5.10	15	16	9	0	2.09	
17	47	10	28	64	218	4	16	18	60	4.00	4.32	4.96	4.64	4.48	13	18	12	0	5.45	
6	11	5	8	34	66	26	63	40	86	4.74	5.61	5.45	4.70	5.12	20	11	4	0	1.58	
1	2	20	56	25	76	26	71	25	87	4.25	5.16	6.09	4.74	5.06	18	13	5	0	1.14	
10	22	10	23	61	198	1	3	30	91	4.77	4.87	5.61	5.96	5.30	21	10	8	0	1.54	
4	4	6	18	20	37	47	87	27	43	3.48	4.83	4.48	6.06	4.71	15	16	10	0	3.74	
0	0	2	2	4	5	99	101	7	9	7.32	6.61	5.61	8.09	6.90	23	8	8	0	2.18	Inaccurate
6	17	15	27	51	86	9	13	25	37	5.51	5.71	4.93	6.61	5.69	19	12	8	0	6.20	
19	32	17	16	25	32	11	21	18	24	5.13	5.27	4.50	5.26	5.04	17	14	7	0	1.26	
11	32	29	102	11	26	15	33	23	72	6.38	6.87	5.67	6.67	6.40	25	6	6	0	3.18	
24	39	5	10	37	70	10	21	18	31	5.70	6.35	5.52	6.64	6.00	21	10	8	0	3.26	
3	9	10	27	71	273	12	22	0	0	5.19	6.26	7.50	6.20	6.28	27	4	10	0	1.93	
10	29	25	78	39	121	21	59	1	1	5.90	6.54	6.06	7.16	6.41	23	8	11	0	6.05	
11	14	14	15	43	47	7	7	22	30	5.12	5.90	5.26	6.51	5.69	18	13	3	0	0.35	
0	0	55	80	0	0	29	37	2	3	9.35	7.73	7.26	8.60	8.23	27	4	10	0	2.80	
6	18	14	29	21	57	29	52	7	19	5.84	7.18	5.68	8.23	6.73	23	8	9	0	4.11	
20	42	37	60	5	12	8	18	2	3	4.51	4.54	4.35	6.48	4.97	18	13	15	0	5.00	
0	0	18	20	34	70	48	61	1	2	3.77	2.77	1.70	4.32	3.14	5	26	16	0	12.30	
0	0	22	42	21	59	52	92	7	10	4.38	5.09	4.45	4.83	4.69	17	14	9	0	3.46	
21	60	1	2	12	32	4	14	84	269	5.74	5.45	3.26	5.10	4.88	16	15	9	0	2.73	
10	16	8	15	22	52	28	73	38	91	8.19	7.80	6.51	8.54	7.76	25	6	8	0	1.40?	
0	0	25	25	7	9	41	44	1	1	6.00	5.50	4.70	6.50	5.67	20	11	15	0	4.01	
9	13	11	16	13	15	52	72	4	4	3.80	3.87	3.55	5.06	4.07	12	19	9	0	2.70	
21	44	8	9	14	30	20	23	0	0	3.18	9.80	6.25	3.70	5.73	21	10	11	0	6.40	
29	37	53	68	7	11	3	3	0	0	6.16	7.20	8.70	7.10	7.29	23	8	2	0	0.50	Inaccurate
36	75	13	32	12	32	10	27	2	4	6.74	7.45	7.83	9.48	7.87	29	2	0	0	0.00	
2	4	82	123	4	8	21	36	0	0	7.25	7.19	6.80	8.45	7.42	26	5	2	0	0.33	
9	9	23	26	26	28	13	21	6	9	3.87	7.38	7.83	9.35	7.10	27	4	2	0	0.51	
17	18	53	59	24	25	6	8	4	4	4.80	7.97	8.00	9.19	7.49	27	4	3	0	1.45	
10	15	60	115	15	23	5	5	8	10	5.32	6.29	6.41	8.41	6.60	24	7	4	0	4.57	
9	15	37	79	14	29	12	30	18	43	4.74	5.88	4.61	6.87	5.45	19	12	8	0	3.89	
19	15	26	40	19	20	20	24	12	13	8.00	8.80	8.77	7.38	8.23	23	8	1	0	0.03	
2	4	9	26	10	34	32	82	1	3	3.40	5.00	4.60	6.70	4.92	17	14	7	0	1.92	
38	98	10	32	17	50	2	5	9	30	3.19	3.45	3.32	4.93	3.72	9	22	5	0	1.67	
2	4	15	22	34	103	28	64	19	40	6.03	5.77	5.90	6.36	6.01	20	11	11	0	2.83	
2	3	1	1	14	29	48	129	17	37	5.10	4.40	5.40	5.90	5.20	18	13	9	0	4.36	

MONTH OF JULY, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Wilkins..........	58.00	64.87	71.00	61.32	63.80	94	42	30.2	21.8	6	12	5	16	14	26
Fort Winnebago.......	63.10	73.80	81.48	70.51	72.22	94	49	21.8	23.2	6	8	0	0	1	1
Fort Crawford.........	70.00	75.06	82.00	74.03	75.25	93	56	17.7	19.3	2	4	4	7	6	10
Fort Atkinson	64.90	76.12	83.12	70.00	73.53	95	49	21.5	24.5	17	40	9	16	5	13
Fort Snelling..........	66.83	73.29	83.03	73.61	74.19	94	54	19.8	20.2	5	7	5	7	7	15
Fort Leavenworth	70.71	81.71	86.00	76.38	78.70	94	58	15.3	20.3	8	8	4	4	2	2
Fort Des Moines	65.30	79.30	88.00	73.50	76.52	98	48	21.5	28.5	8	14	0	0	23	24

MONTH OF JULY, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	35	19	70	11	37	39	115	19	48	4.80	5.19	4.93	5.45	5.09	16	14	9	0	....	
3	4	8	24	7	19	16	35	13	31	4.23	4.48	4.09	5.52	4.58	16	15	11	0	4.36	
24	42	10	22	30	62	6	10	39	73	4.13	6.45	5.88	7.60	6.00	21	10	8	0	3.90	
3	6	5	13	27	79	30	69	28	62	4.70	5.48	5.32	7.03	5.63	22	9	10	0	7.21	
37	68	12	20	17	20	21	32	20	37	4.64	6.35	7.06	3.90	5.48	20	11	10	0	2.56	
12	16	77	81	16	25	3	4	2	2	7.80	8.32	8.03	8.80	8.23	28	3	1	0	0.01	
16	17	14	15	9	23	45	47	7	12	5.21	6.10	6.27	8.18	6.44	24	7	6	0	0.51	

MONTH OF AUGUST, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Kent	52.09	63.45	72.87	58.70	61.78	88	35	26.2	26.8	26	56	5	6	6	6
Hancock Barracks	56.45	66.39	73.80	62.64	64.82	87	34	22.2	30.8	22	43	2	2	1	1
Fort Sullivan	57.19	65.51	69.19	61.06	63.24	81	48	17.8	15.2	5	10	3	6	2	3
Fort Preble	60.90	68.10	71.60	64.10	66.17	81	48	14.8	18.2	10	29	2	5	3	10
Fort Constitution	61.70	68.35	72.96	64.20	66.80	82	52	15.2	14.8	3	5	8	24	4	6
Fort Adams	68.09	74.32	77.32	69.16	72.22	85	58	12.8	14.2	10	23	17	49	8	23
Fort Trumbull	65.22	71.93	80.09	68.16	71.35	90	50	18.6	21.4	18	44	13	42	1	3
Fort Hamilton	69.42	73.26	84.26	74.73	75.42	92	62	16.6	13.4	6	19	28	78	8	22
Fort Columbus	70.70	75.80	83.20	74.45	76.04	90	64	14.0	12.0	3	4	22	41	12	21
West Point	67.12	74.17	82.19	72.25	74.18	90	60	15.8	14.2	14	17	3	4	4	4
Watervliet Arsenal	63.16	72.42	85.42	68.90	72.47	96	54	23.5	18.5	9	29	0	0	0	0
Plattsburg Barracks	60.12	69.38	78.06	65.03	68.15	90	42	21.8	26.2	12	39	0	0	21	63
Madison Barracks	61.41	70.67	75.69	67.90	68.92	84	51	15.1	17.9	0	0	24	61	1	2
Fort Ontario	63.35	70.26	74.93	67.70	69.06	84	52	14.9	17.1	20	23	12	19	14	15
Fort Niagara	65.77	71.19	74.09	70.22	70.32	82	58	11.7	12,3	12	19	30	94	10	50
Alleghany Arsenal	62.67	72.38	85.16	69.45	72.41	89	45	16.6	27.4	20	20	12	13	21	28
Carlisle Barracks	74.19	78.45	83.90	79.12	78.91	94	60	15.1	18.9	0	0	3	3	37	39
Fort Mifflin	69.80	78.48	81.90	71.48	75.41	92	60	16.6	15.4	10	18	29	47	24	41
Fort McHenry	68.21	72.10	81.16	70.13	72.90	91	57	18.1	15.9	5	5	46	72	19	14
Fort Monroe	74.58	77.32	82.19	77.70	77.95	90	69	12.0	9.0	4	4	12	29	20	46
Fort Moultrie	77.20	81.48	83.36	80.09	80.52	90	68	9.5	12.5	14	50	9	33	5	18
Augusta Arsenal	74.16	81.58	89.45	78.58	80.94	99	70	18.1	10.9	12	25	6	12	8	12
Oglethorpe Barracks	75.61	80.87	86.22	80.80	80.87	93	68	12.1	12.9	25	34	5	7	10	20
Fort Brooke	75.00	79.06	83.51	79.16	79.18	88	72	8.8	7.2	10	13	6	16	9	9
Mount Vernon Arsenal	72.00	83.51	88.66	80.00	81.04	99	64	18.0	17.0	0	0	17	51	0	0
Fort Wood	75.06	85.22	88.80	79.51	82.15	100	70	17.8	12.2	19	19	1	1	13	13
Baton Rouge	70.26	86.19	90.00	76.14	80.65	96	64	15.3	16.7	0	0	0	0	32	47
Fort Towson	70.22	80.48	89.74	78.48	79.73	99	62	19.3	17.7	11	28	16	27	36	60
Fort Washita	68.54	80.64	90.12	77.42	79.18	100	62	20.8	17.2	0	0	0	0	9	13
Fort Smith	69.80	79.35	87.52	76.41	78.27	96	60	17.7	18.3	0	0	16	17	34	35
Fort Gibson	72.92	79.92	84.46	78.47	78.94	99	63	20.1	15.9	2	2	7	7	4	4
Fort Scott	68.22	76.83	86.25	72.77	76.02	94	59	18.0	17.0	6	6	27	30	11	12
Jefferson Barracks	71.16	76.54	83.61	74.70	76.50	94	61	17.5	15.5	29	54	13	18	11	19
St. Louis Arsenal	68.09	74.96	85.26	75.10	75.85	94	60	18.1	15.9	10	15	21	27	24	28
Detroit Barracks	62.00	74.00	84.00	67.70	71.92	87	50	15.1	21.9	31	65	9	18	22	44
Fort Gratiot	59.19	72.76	80.39	66.42	69.69	91	47	21.3	22.7	7	22	31	85	13	29
Fort Mackinac	59.58	65.54	69.06	63.61	64.45	74	43	9.5	21.5	15	40	13	30	20	69
Fort Brady	57.10	65.30	71.00	61.70	63.77	82	41	18.2	22.8	11	16	6	9	36	47
Fort Wilkins	57.22	62.85	67.41	57.48	61.24	84	44	22.8	17.2	10	13	7	10	4	6
Fort Winnebago	59.94	71.58	79.06	68.06	69.66	86	50	16.3	19.7	8	14	2	2	2	4
Fort Crawford	64.15	75.25	78.11	71.80	72.33	87	58	14.7	14.3	11	19	16	25	2	2
Fort Atkinson	59.70	73.25	78.70	65.77	69.35	86	48	16.6	21.4	25	43	14	34	6	14
Fort Snelling	60.58	69.83	78.74	68.74	69.47	89	51	19.5	18.5	5	5	13	14	13	16
Fort Leavenworth	68.00	77.64	82.86	74.00	75.62	94	62	18.4	13.6	25	26	22	23	4	6
Fort Des Moines	59.22	74.80	85.11	68.30	71.86	94	44	22.1	27.9	12	19	7	10	11	13

MONTH OF AUGUST, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	7	32	47	14	21	21	36	9	14	3.90	5.16	5.64	6.16	5.22	20	11	11	0	2.57	
8	17	38	86	13	29	34	56	8	15	3.32	3.74	4.39	6.03	4.37	18	13	8	0	2.15	
6	14	78	96	19	34	5	8	20	60	3.32	4.51	5.19	4.83	4.46	15	16	6	0	3.85	
4	6	52	94	35	55	15	22	3	5	3.40	4.50	4.30	5.40	4.40	16	15	5	0	2.93	
10	13	46	86	1	1	10	12	11	20	4.03	4.96	5.22	4.86	4.77	16	15	7	0	2.72	
17	32	9	16	39	109	21	32	3	7	1.87	3.38	3.71	4.35	2.57	8	23	6	0	3.54	
9	22	26	64	45	91	2	3	10	25	2.87	4.06	5.03	5.48	4.41	12	19	8	0	1.60	
12	25	15	36	41	96	3	4	11	29	4.51	5.89	5.48	6.39	5.56	20	11	8	0	4.48	
23	45	6	19	30	58	6	9	22	32	3.48	5.00	4.42	3.48	4.09	13	18	8	0	3.21	
42	53	19	28	14	16	9	10	19	20	4.26	4.97	5.19	5.29	4.92	19	12	12	0	7.72	
19	38	22	53	16	32	40	88	14	31	....	....	....	....	....	25	6	4	0	1.19	Inaccurate.
0	0	63	138	0	0	28	72	0	0	6.19	6.45	6.27	4.09	5.75	22	9	7	0	1.31	
36	89	2	5	50	141	2	6	8	14	4.70	5.16	5.45	6.29	5.40	20	11	6	0	0.57	
18	23	29	42	3	4	9	13	19	24	5.19	5.13	5.25	7.06	5.65	18	13	6	0	....	
10	18	18	43	22	44	20	56	2	3	4.01	4.70	4.25	4.35	4.32	16	15	8	0	2.81	
13	18	9	10	25	37	14	18	10	11	5.32	5.77	5.54	6.45	5.52	19	12	9	0	3.06	
12	13	6	6	0	0	60	61	6	6	3.77	3.12	3.80	6.41	4.27	9	22	10	0	5.94	Therm. protected.
9	10	18	25	16	19	13	15	5	7	3.77	3.64	2.83	4.42	3.66	10	21	12	0	15.20	
28	30	4	6	10	21	6	17	6	4	2.23	3.11	2.19	4.18	2.93	8	23	10	0	2.77	
34	56	10	18	23	31	7	12	14	18	4.00	4.12	3.16	5.48	4.19	12	19	19	0	9.98	
2	10	36	105	24	66	22	64	12	41	6.51	6.16	5.38	6.58	6.13	24	7	5	0	5.90	
6	9	19	18	41	43	11	18	21	23	4.48	5.00	3.77	5.19	4.61	15	16	11	0	2.62	
1	1	37	42	2	2	42	52	2	2	8.55	7.71	6.13	7.25	7.41	27	4	12	0	9.94	
10	19	17	17	23	24	43	31	6	8	2.80	4.50	2.83	4.35	3.62	6	25	11	0	8.23	
17	48	2	8	30	69	2	7	56	153	8.10	6.81	4.11	5.30	6.08	22	9	11	0	6.48	
1	1	49	53	9	12	30	32	1	1	6.87	6.19	4.96	5.22	5.81	22	9	8	0	3.78	
30	48	8	13	23	43	31	32	0	0	3.16	8.80	7.19	3.17	5.58	18	13	5	0	2.30	
28	55	15	29	8	19	6	14	4	5	4.19	6.03	6.06	7.41	5.92	20	11	6	0	3.26	
10	20	62	95	2	3	38	60	3	5	4.93	5.44	4.55	6.32	5.31	17	14	11	0	4.12	
3	3	8	8	50	51	7	8	6	7	5.32	5.96	6.67	7.70	6.38	19	12	8	0	9.14	
29	30	49	50	24	35	0	0	9	9	3.42	5.90	5.61	5.14	5.01	17	14	8	0	1.63	
17	22	13	15	21	22	2	2	27	30	6.09	6.25	6.25	6.70	6.32	22	9	8	0	7.18	
10	18	19	35	12	18	14	29	16	20	4.03	4.06	3.96	6.54	4.64	13	18	11	0	4.53	
17	30	12	13	9	9	14	18	17	19	6.58	7.80	7.38	7.32	7.27	22	9	10	0	7.45	
4	6	10	19	8	21	16	34	5	12	3.90	5.50	5.20	6.80	5.35	17	14	4	0	1.32	
47	114	7	19	11	26	0	0	8	21	3.19	3.52	3.87	6.23	4.20	10	21	6	0	2.16	
12	26	13	27	18	45	20	52	13	30	3.80	4.77	5.64	5.13	4.83	17	14	7	0	1.08	
14	28	5	5	10	19	31	74	11	34	3.20	4.70	3.50	4.50	3.90	13	18	4	0	3.94	
12	36	22	78	13	40	42	114	14	33	3.97	4.00	4.58	5.67	4.55	15	16	10	0	....	
5	14	8	14	3	7	14	35	1	1	3.87	4.94	4.61	6.13	4.90	16	15	6	0	1.53	
15	19	21	40	11	13	3	5	45	71	2.17	5.70	6.15	6.28	5.07	21	10	5	0	1.35	
8	27	5	11	13	41	32	75	21	42	4.96	4.22	5.12	7.51	5.45	16	15	9	0	5.07	
33	50	14	14	5	6	23	28	18	26	3.90	5.87	6.06	3.61	3.36	17	14	9	0	3.28	
21	27	39	43	6	7	0	0	7	9	3.80	5.90	6.68	7.22	5.90	23	8	3	0	1.70	
1	2	17	18	27	28	27	37	2	3	5.21	6.10	5.60	6.11	5.75	19	12	11	0	2.34	

MONTH OF SEPTEMBER, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Preble	51.40	57.10	62.40	55.40	56.57	78	43	21.4	13.6	7	11	4	16	1	3
Fort Adams	58.50	63.20	66.86	60.80	62.84	78	49	15.2	13.8	7	28	13	37	10	14
Fort Trumbull	56.26	64.03	68.93	61.03	62.56	78	44	15.4	18.6	26	57	3	8	0	0
Fort Hamilton	61.13	64.30	72.20	66.26	65.97	80	48	14.0	18.0	13	13	23	62	4	9
Fort Columbus	60.66	65.03	71.60	64.66	65.49	86	48	20.5	17.5	4	4	11	17	3	4
West Point	56.86	61.60	67.53	61.16	61.79	80	45	18.2	16.8	4	7	6	11	2	3
Watervliet Arsenal	49.77	56.53	63.87	52.27	55.61	76	40	20.4	15.6	16	32	0	0	0	0
Plattsburg Barracks	47.60	54.96	63.00	53.06	54.65	74	33	19.3	21.7	7	19	1	4	10	20
Madison Barracks	51.86	57.56	61.80	56.20	56.85	76	38	19.1	18.9	0	0	10	24	0	0
Fort Ontario	54.10	59.30	63.43	57.16	58.50	78	42	19.5	16.5	4	7	6	12	6	6
Fort Niagara	56.56	61.00	65.50	59.86	60.73	78	40	17.3	20.7	6	18	5	16	5	6
Alleghany Arsenal	54.90	61.56	72.13	59.83	62.10	84	39	21.9	23.1	9	11	9	10	13	13
Carlisle Barracks	67.03	70.60	76.63	71.76	71.50	89	53	17.5	18.5	0	0	3	3	15	15
Fort Mifflin	58.50	69.40	76.13	62.66	66.67	88	44	21.3	22.7	12	17	9	13	9	11
Fort McHenry	60.37	66.73	74.80	66.28	67.05	85	43	17.9	24.1	14	17	5	7	8	9
Fort Monroe	68.33	72.16	76.10	71.40	72.00	92	55	20.0	17.0	6	14	13	40	11	28
Fort Moultrie	73.43	79.56	81.86	77.83	73.17	91	58	17.8	15.2	3	5	18	69	25	93
Augusta Arsenal	65.63	76.06	84.86	72.86	74.85	95	52	20.1	22.9	10	11	35	50	9	10
Oglethorpe Barracks	71.33	77.16	82.80	77.20	77.12	92	60	14.9	17.1	40	48	10	16	28	49
Fort Marion	74.50	77.60	81.90	77.10	77.77	93	70	15.2	7.8	2	4	30	102	35	119
Fort Brooke	74.50	77.13	80.96	77.76	77.59	87	69	9.4	8.6	0	0	27	33	4	4
Mount Vernon Arsenal	67.20	72.66	84.20	73.13	74.30	91	54	16.7	20.3	0	0	27	64	0	0
Fort Wood	71.48	84.40	82.58	74.40	78.21	90	61	11.8	17.2	18	26	15	17	32	40
Baton Rouge	68.53	78.33	86.56	73.10	76.63	96	56	19.4	20.6	3	4	11	20	52	62
Fort Jesup	70.83	76.47	83.43	75.50	76.56	93	56	16.4	20.6	28	38	18	24	27	37
Fort Towson	65.33	76.03	87.36	73.03	75.44	96	54	20.6	21.4	23	58	27	56	37	70
Fort Washita	66.90	76.21	87.90	73.24	76.06	99	52	22.9	24.1	0	0	3	7	12	19
Fort Smith	64.63	73.50	82.03	70.05	72.55	91	52	18.4	20.6	6	6	6	7	55	61
Fort Gibson	66.27	75.89	86.66	73.49	75.58	97	54	21.4	21.6	1	1	10	12	8	12
Fort Scott	59.90	69.50	80.60	66.80	69.20	94	39	24.8	30.2	11	11	14	15	4	4
Jefferson Barracks	64.75	69.87	77.58	69.37	70.40	94	47	23.6	23.4	6	12	9	14	2	4
St. Louis Arsenal	60.03	66.50	82.63	70.96	75.03	96	42	21.0	33.0	14	14	10	11	15	15
Detroit Barracks	50.40	63.00	69.20	56.20	59.70	84	36	24.3	23.7	19	41	0	0	12	25
Fort Gratiot	51.06	60.47	67.60	56.10	58.81	82	33	23.2	25.8	2	4	5	14	6	21
Fort Mackinac	50.50	54.66	57.80	52.10	53.76	70	38	16.2	15.8	11	33	6	13	5	17
Fort Brady	53.10	54.50	57.50	54.60	54.92	70	40	15.1	14.9	5	14	4	9	4	5
Fort Wilkins	51.72	56.23	62.46	52.50	55.75	78	40	22.2	15.8	5	7	0	0	2	4
Fort Atkinson	51.16	61.96	68.53	56.73	59.59	85	22	25.4	37.6	7	11	6	10	1	2
Fort Snelling	51.26	58.96	69.53	59.43	59.79	82	40	22.2	19.8	5	6	2	2	2	2
Fort Leavenworth	60.06	73.20	78.10	66.76	69.53	99	42	29.5	27.5	7	9	17	23	14	21
Fort Des Moines	50.96	66.14	76.57	58.27	62.98	90	30	27.0	33.0	18	20	0	0	22	26

MONTH OF SEPTEMBER, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	6	33	86	27	51	21	44	20	47	4.10	4.80	5.10	5.10	4.52	17	13	11	0	2.57	
9	18	16	43	27	98	13	31	25	67	4.26	5.13	4.90	5.66	4.98	15	15	9	0	2.96	
5	15	11	32	22	78	18	38	35	91	5.53	6.00	5.10	5.80	5.60	17	13	8	0	1.74	
1	2	2	5	16	74	17	105	24	85	6.13	6.66	6.30	7.10	6.54	21	10	9	0	2.28	
24	44	2	3	25	48	5	6	46	73	4.83	5.03	5.40	6.00	5.31	18	12	9	0	2.62	
28	61	8	12	12	16	15	24	45	63	5.00	5.63	4.90	5.53	5.26	19	11	9	0	2.60	
0	0	63	187	6	16	30	85	3	6	....	....	....	....	....	16	14	9	0	3.12	Winds local.
0	0	44	120	13	34	44	108	1	2	6.23	5.43	5.80	3.76	5.30	19	11	14	0	3.66	
40	125	1	3	37	144	7	26	25	79	2.13	2.80	3.70	4.20	3.20	6	24	15	0	3.18	
12	18	20	36	30	53	23	36	19	32	2.53	2.46	4.16	4.03	3.29	9	21	12	0	3.63	
17	50	24	81	18	62	32	110	13	59	3.56	3.63	4.50	4.26	3.98	10	20	11	0	3.06	
3	5	7	25	17	47	27	70	25	51	3.73	4.93	5.13	5.86	4.91	16	14	12	0	3.39	
0	0	4	8	6	5	71	76	21	29	5.93	5.96	5.40	6.24	5.88	21	9	3	0	3.25	Therm. protected
10	16	24	45	21	37	21	14	21	25	4.06	4.33	4.46	7.30	5.03	14	16	7	0	5.10	
29	30	4	5	36	55	18	25	6	13	4.15	4.27	5.11	6.21	4.93	14	16	9	0	1.51?	
29	64	9	22	21	54	5	12	26	55	5.33	5.70	5.26	6.53	5.70	20	10	6	0	4.65	
2	7	7	25	10	42	33	116	22	69	6.76	7.10	6.80	7.40	7.01	26	4	4	0	2.60	
21	23	11	13	22	24	7	8	5	5	6.46	6.83	5.73	8.30	6.83	24	6	2	0	0.53	
2	2	9	15	4	6	24	43	3	3	7.50	7.00	6.80	8.00	7.33	25	5	9	0	2.21	
5	16	19	47	7	17	10	14	0	0	4.70	5.60	4.80	4.90	5.00	20	10	7	0	4.81	
38	42	16	29	25	40	4	6	6	8	5.80	6.13	3.90	5.06	5.22	14	16	11	0	12.69	
39	86	4	7	29	64	2	7	19	47	7.00	6.10	5.50	7.13	6.43	21	9	6	0	5.40	
2	4	12	15	19	25	14	16	2	2	5.60	4.90	4.50	6.40	5.35	18	12	12	0	5.24	
16	28	12	14	9	17	17	25	0	0	3.36	7.20	7.56	3.83	5.48	19	11	6	0	3.60	
10	13	19	21	11	11	5	6	2	4	4.29	6.50	6.29	5.90	5.74	20	10	7	0	1.90	Inaccurate.
14	32	7	15	6	13	3	7	3	5	5.90	6.93	7.56	8.63	7.25	24	6	3	0	2.48	
19	30	48	76	12	18	19	29	7	10	5.27	6.73	7.21	7.23	6.61	20	10	4	0	2.65	
10	10	14	14	13	13	8	10	8	9	6.96	4.20	8.30	9.60	7.26	24	6	3	0	1.60	
30	34	49	50	9	9	10	10	3	3	2.33	6.80	8.40	9.60	6.78	23	7	5	0	1.44	
15	17	21	39	37	52	3	4	15	15	5.56	6.76	7.10	7.60	6.73	24	6	6	0	3.35	
32	77	10	25	8	18	12	40	17	46	4.16	5.33	5.16	7.62	5.56	11	13	4	0	1.71	
14	16	26	32	11	13	21	24	8	9	7.56	8.23	8.90	8.33	8.25	25	5	2	0	0.59	
1	2	23	60	10	22	28	71	13	29	4.30	4.50	4.40	6.10	4.58	15	15	9	0	3.82	
35	94	11	28	24	54	11	21	26	69	4.16	4.50	4.13	5.06	4.46	14	16	14	0	4.30	
18	61	15	28	11	35	27	102	27	70	3.70	3.90	4.20	4.06	3.96	12	18	16	0	5.15	
30	60	16	39	17	37	25	66	19	62	1.90	2.00	3.20	3.80	2.70	4	26	14	0	2.64	
19	49	18	35	13	28	35	93	28	72	4.23	4.23	3.23	4.00	3.92	15	15	8	0	....	
14	42	2	5	17	43	31	90	38	99	5.56	5.90	5.20	6.16	5.70	19	10	7	0	3.27	
30	49	10	10	21	23	19	39	28	78	4.06	5.83	6.46	3.93	5.07	16	14	8	0	2.21	
23	34	6	8	26	35	8	10	19	27	5.33	7.43	8.13	7.23	7.03	23	7	7	0	6.70	
10	20	29	36	4	9	35	52	2	3	6.79	6.51	6.24	7.20	6.68	22	8	7	0	3.04	

MONTH OF OCTOBER, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	51.26	53.29	58.22	52.71	53.87	69	31	15.1	22.9	18	51	28	96	6	16
Fort Trumbull	48.64	54.58	61.38	52.83	54.36	73	26	18.6	28.4	38	88	17	50	6	18
Fort Hamilton	52.03	54.84	65.48	56.61	57.24	76	30	18.8	27.2	14	45	32	85	5	12
Fort Columbus	50.51	54.83	61.63	54.25	62.81	74	30	11.2	32.8	13	17	21	23	0	0
West Point	47.93	51.74	59.58	51.16	52.60	73	26	20.4	26.6	12	31	2	2	4	5
Watervliet Arsenal	41.06	50.42	58.10	45.87	48.86	72	22	23.1	26.9	42	81	4	4	0	0
Plattsburg Barracks	43.20	47.70	55.00	46.80	48.17	72	20	23.8	28.2	18	40	6	18	4	8
Madison Barracks	45.87	51.06	53.06	49.77	49.94	68	23	18.1	26.9	0	0	20	59	0	0
Fort Ontario	45.26	49.87	55.67	48.77	49.89	70	28	20.1	21.9	7	16	11	29	7	10
Fort Niagara	46.87	51.64	54.70	49.48	50.67	68	28	17.3	22.7	6	21	12	40	3	3
Alleghany Arsenal	39.90	45.19	58.33	46.09	47.38	68	22	20.6	25.4	14	28	10	10	22	23
Carlisle Barracks	52.58	55.25	63.93	56.90	57.16	78	39	20.8	18.2	0	0	2	2	27	28
Fort Mifflin	46.54	56.22	62.90	50.16	53.95	82	28	28.0	26.0	21	36	19	23	8	10
Fort McHenry	47.10	52.30	64.20	53.90	54.37	79	27	24.6	27.4	18	45	12	18	16	17
Fort Monroe	57.61	61.25	65.41	60.00	61.07	78	45	16.9	16.1	6	11	28	92	22	46
Fort Moultrie	62.51	68.74	70.67	67.32	67.31	84	46	16.7	21.3	28	105	40	116	22	79
Augusta Arsenal	55.89	62.16	70.68	62.75	62.86	82	42	19.1	20.9	27	40	53	70	2	3
Oglethorpe Barracks	60.58	65.48	72.84	67.90	66.70	84	44	17.3	22.7	60	102	8	13	23	33
Fort Marion	70.00	73.90	76.40	71.20	72.87	87	53	14.1	19.9	8	29	57	236	7	17
Fort Brooke	68.96	72.61	76.51	72.90	72.74	83	52	10.3	20.7	3	4	55	84	1	1
Mount Vernon Arsenal	55.51	62.74	70.35	61.90	62.62	81	42	18.4	20.6	2	10	65	118	4	8
Fort Wood	62.10	67.54	72.10	66.70	67.03	80	50	13.0	17.0	33	43	25	21	47	59
Baton Rouge	58.16	67.12	75.29	64.36	66.23	84	42	17.8	24.2	0	0	15	28	60	99
Fort Jesup	59.55	62.78	75.41	64.53	65.57	81	44	15.4	21.6	29	39	21	23	37	43
Fort Towson	50.29	59.03	72.19	58.90	60.10	88	30	27.9	30.1	30	59	19	37	45	72
Fort Washita	50.16	62.20	72.22	58.27	60.71	86	34	25.3	26.7	0	0	1	2	16	31
Fort Smith	45.80	54.26	67.50	53.80	55.34	78	32	22.7	23.3	3	4	7	9	69	82
Fort Gibson	50.85	56.59	67.92	57.64	58.25	82	32	23.7	26.3	2	2	16	21	12	14
Fort Scott	43.41	52.80	62.40	50.32	52.23	77	32	24.8	20.2	16	28	15	18	12	12
Jefferson Barracks	45.67	53.38	63.16	55.58	54.45	76	28	21.5	26.5	4	12	2	7	0	0
St. Louis Arsenal	43.45	50.29	67.90	54.16	53.95	78	32	24.0	22.0	19	..	14	..	18	..
Detroit Barracks	39.60	48.20	61.00	46.60	48.85	70	18	21.1	30.9	13	29	3	8	10	20
Fort Gratiot	40.29	47.74	57.16	46.58	47.94	75	20	27.1	27.9	1	1	9	26	10	23
Fort Mackinac	41.74	44.00	47.54	43.11	44.10	63	23	18.1	21.9	15	41	5	13	4	18
Fort Brady	40.90	44.60	52.30	43.90	45.42	74	24	28.6	21.4	4	13	3	5	7	12
Fort Wilkins	41.25	44.41	48.67	42.38	44.18	76	30	31.8	14.2	6	15	4	7	6	16
Fort Atkinson	38.54	45.48	53.70	43.09	45.20	72	15	26.8	30.2	7	15	6	12	0	0
Fort Snelling	38.83	43 35	54.90	45.48	45.64	72	18	26.4	27.6	1	1	2	4	1	3
Fort Leavenworth	44.87	56.09	59.80	51.09	52.96	84	24	31.0	29.0	5	8	45	56	3	3

MONTH OF OCTOBER, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	33	10	29	12	35	25	73	14	33	3.90	4.35	4.87	5.51	4.65	13	18	9	0	4.74	
5	16	4	12	10	26	13	27	31	76	4.16	5.52	5.70	5.22	5.15	17	14	7	0	3.65	
12	23	13	30	33	67	5	13	10	36	5.89	6.06	7.16	6.75	6.46	21	10	4	0	1.76	
12	17	9	29	23	25	30	39	16	24	4.67	6.19	6.45	6.22	5.88	21	10	7	0	2.50	
34	64	12	17	12	14	7	8	41	87	4.45	5.84	5.39	6.22	5.47	19	12	7	0	2.93	
0	0	60	156	1	1	15	45	3	6	....	....	....	....	....	22	9	6	1	2.04	
5	16	44	107	16	43	26	54	5	14	5.10	5.40	5.70	5.30	5.37	16	15	8	2	2.26	
54	158	0	0	23	70	1	4	26	89	3.51	4.58	4.03	4.07	4.04	12	19	11	0	2.64	
17	27	32	54	26	48	8	18	16	35	3.87	5.00	4.45	4.61	4.48	14	17	9	0	5.60	
9	21	45	101	19	64	16	60	14	52	2.61	3.00	3.51	3.67	3.19	6	25	7	0	1.42	
13	14	1	3	25	39	23	40	16	26	2.96	6.09	5.54	6.35	5.23	20	11	7	0	3.37	
3	5	0	0	0	0	82	82	10	10	6.54	6.83	7.29	7.41	7.01	24	7	6	0	9.70	Temp. inaccurate.
12	12	11	27	18	28	25	29	10	14	5.38	5.00	5.74	6.03	5.53	18	13	5	0	4.60	
36	38	2	7	12	12	19	38	9	13	5.10	5.80	5.26	7.12	5.82	19	12	4	0	3.73	
15	30	2	6	15	32	12	26	24	64	3.38	4.58	4.80	6.41	4.79	16	15	2	0	2.00	
8	29	1	4	4	16	12	39	9	33	4.03	5.58	5.02	6.07	5.17	19	12	8	0	7.55	
6	6	5	5	14	14	1	1	16	17	3.93	5.46	4.80	6.27	5.11	15	16	8	0	3.51	
4	8	12	17	1	1	12	20	4	4	7.90	5.25	6.61	7.58	6.86	22	9	8	0	5.94	
26	73	9	21	3	10	3	8	3	12	3.40	4.00	3.30	5.00	3.45	14	17	12	0	6.06	
25	26	1	3	4	6	0	0	35	92	6.38	6.83	5.16	4.19	5.64	19	12	5	0	2.14	
11	34	0	0	11	34	1	2	30	119	4.74	5.06	5.30	6.10	5.30	17	14	7	0	11.87	
1	1	5	8	2	3	3	4	1	2	4.60	4.40	4.70	5.20	4.72	14	17	8	0	10.49	
15	30	5	11	8	13	19	35	2	5	3.28	7.29	8.35	3.41	5.57	22	9	8	0	3.10	
7	7	11	12	2	2	1	1	12	20	2.14	4.19	3.30	3.31	3.50	10	21	5	0	0.60	Amount of rain incomplete.
16	33	6	12	0	0	2	3	6	13	5.16	5.71	6.35	8.67	6.47	23	8	6	0	4.90	
27	48	39	42	31	52	8	15	2	7	4.30	6.10	7.60	6.20	6.05	20	11	5	0	3.65	
8	10	2	3	8	9	11	11	16	23	5.96	6.22	6.22	9.16	6.89	23	8	6	0	2.90	
61	71	23	25	2	2	2	2	6	7	2.58	5.87	5.55	7.00	5.25	17	14	6	0	3.49	
17	21	14	26	22	35	13	14	15	17	5.35	5.41	4.93	6.87	5.64	18	13	10	0	3.05	
26	62	4	9	36	58	4	7	48	77	5.00	4.87	6.19	6.93	5.74	20	11	3	0	0.63	
24	..	14	..	14	..	11	..	10	..	7.54	8.19	8.22	7.83	7.94	22	9	3	0	1.91	
5	9	15	26	15	37	27	69	3	6	4.10	4.20	4.60	5.20	4.52	14	17	6	0	1.60	
41	76	23	59	15	33	6	15	19	52	3.87	4.12	4.29	5.19	4.36	14	17	10	1	2.44	
10	25	27	76	16	53	30	118	17	55	3.45	3.35	3.22	5.06	3.77	12	19	7	4	1.56	
32	40	16	20	26	53	31	56	5	18	3.00	3.00	3.90	4.80	3.60	12	19	6	3	3.95	
11	26	19	56	36	101	17	62	25	68	2.25	3.19	3.29	2.67	2.85	9	22	4	4	....	
15	33	32	80	19	30	7	16	38	104	4.80	5.09	4.48	6.25	5.15	16	15	4	1	1.22	
50	94	12	16	13	28	26	53	19	52	3.25	3.83	4.32	2.93	3.55	9	22	8	0	0.66	
34	52	5	8	21	46	0	0	11	20	4.48	6.45	5.19	6.06	5.54	20	11	5	0	1.30	

MONTH OF NOVEMBER, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Adams	44.40	46.43	49.40	46.44	46.67	59	22	12.3	24.7	14	51	10	28	3	6
Fort Trumbull	43.06	46.73	51.03	44.73	46.39	64	18	17.6	28.4	25	55	11	25	3	8
Fort Hamilton	44.23	46.26	52.86	45.36	47.18	68	25	20.8	22.2	3	11	23	65	2	5
Fort Columbus	41.46	46.00	50.30	44.97	45.68	68	23	22.3	22.7	2	2	14	15	0	0
West Point	40.06	42.70	48.36	42.16	43.32	69	18	25.7	25.3	2	5	4	7	0	0
Watervliet Arsenal	33.73	41.40	46.83	37.23	39.80	62	20	22.2	19.8	15	37	0	0	0	0
Plattsburg Barracks	35.50	36.40	40.50	36.20	37.15	60	6	22.8	31.2	14	29	20	43	1	1
Madison Barracks	36.53	37.93	39.56	37.03	37.76	59	11	21.2	26.8	1	3	18	53	0	0
Fort Ontario	38.06	39.43	42.00	38.70	39.55	58	14	18.4	25.6	28	65	8	14	5	12
Fort Niagara	38.23	39.80	41.26	38.53	39.45	60	14	20.5	25.5	5	23	6	21	2	3
Alleghany Arsenal	34.40	36.56	45.23	36.10	38.07	61	14	22.9	24.1	4	4	4	6	16	16
Carlisle Barracks	44.63	46.33	49.50	46.76	46.80	70	24	23.2	22.8	8	8	2	2	0	0
Fort Mifflin	39.93	45.46	51.10	41.80	44.57	76	19	31.4	25.6	10	13	7	11	5	6
Fort McHenry	39.20	42.12	50.80	42.15	43.57	63	19	19.4	24.6	5	6	9	18	4	4
Fort Monroe	48.10	50.03	57.50	51.16	51.70	72	30	20.3	21.7	8	15	18	34	3	6
Fort Moultrie	52.05	58 05	63.04	57.06	57.55	75	36	17.4	21.6	7	27	0	0	0	0
Augusta Arsenal	44.30	47.86	58.76	51.93	50.71	76	22	25.3	28.7	14	14	8	14	0	0
Oglethorpe Barracks	49.16	54.16	65.30	57.43	56.51	78	31	21.5	25.5	28	47	3	3	9	11
Fort Marion	55.10	64.60	68.00	60.00	61.92	83	34	31.1	27.9	31	80	27	100	0	0
Fort Brooke	55.00	62.40	71.00	62.10	62.62	78	36	15.4	26.6	39	76	28	39	9	10
Barrancas Barracks	50.87	56.57	64.97	55.23	56.91	75	36	18.1	20.9	31	60	31	77	18	38
Mount Vernon Arsenal	45.56	53.16	63.00	50.40	53.03	78	24	25.0	29.0	6	13	27	55	7	12
Baton Rouge	49.13	57.76	67.63	56.20	57.68	82	28	24.3	29.7	7	21	20	57	57	111
Fort Jesup	52.60	57.10	64.70	57.30	57.92	78	28	20.1	29.9	53	76	14	15	20	23
Corpus Christi	57.00	62.60	67.90	62.00	62.22	89	30	26.8	32.2	29	83	28	86	17	43
Fort Towson	41.36	47.20	59.90	49.56	49.50	80	20	30.5	29.5	31	68	9	20	18	39
Fort Washita	38.17	50.28	61.50	48.12	49.52	83	17	33.5	32.5	7	11	10	36	9	14
Fort Smith	36.50	45.06	56.87	41.50	44.98	80	13	35.0	32.0	6	12	22	26	20	23
Fort Gibson	40.78	45.19	56.60	45.93	47.12	78	12	30.9	35.1	4	5	29	30	2	2
Fort Scott	32.90	38.56	48.30	38.70	39.61	71	—10	31.4	49.6	18	31	11	13	1	1
Jefferson Barracks	34.53	41.40	50.33	40.06	41.58	71	— 2	29.4	43.6	0	0	2	4	0	0
St. Louis Arsenal	32.63	39.46	50.20	39.90	40.55	75	— 2	34.4	42.6	28	13	6	6	6	6
Detroit Barracks	31.00	35.00	42.00	34.00	35.50	63	2	27.5	33.5	19	60	0	0	2	3
Fort Gratiot	32.93	35.13	41.67	34.47	36.05	65	1	28.9	35.1	2	8	8	27	1	5
Fort Mackinac	30.23	31.83	34.23	30.83	31.78	52	1	20.2	30.8	29	81	13	38	7	16
Fort Brady	29.60	32.30	34.20	29.90	31.50	67	— 9	35.5	40.5	14	26	8	17	10	15
Fort Wilkins	29.33	31.13	33.46	29.33	30.81	60	5	29.2	25.8	21	68	5	14	1	3
Fort Atkinson	26.30	30.60	37.70	29.50	31.02	60	—12	29.0	19.0	44	94	0	0	0	0
Fort Snelling	23.76	26.90	37.93	29.40	29.50	68	—12	38.5	41.5	3	11	3	6	5	7
Fort Leavenworth	31.27	44.13	50.36	38.80	41.14	76	—14	34.9	55.1	36	64	10	14	14	18

MONTH OF NOVEMBER, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	30	7	23	18	62	32	128	24	97	3.50	3.89	4.20	4.90	4.10	12	18	11	0	9.49	
7	25	8	22	12	38	25	76	29	79	3.86	4.23	4.80	5.50	4.59	12	18	10	0	7.96	
6	11	2	4	41	115	16	70	27	127	6.00	5.76	5.33	5.60	5.67	19	11	5	1	2.95	
12	17	2	3	24	43	34	45	32	55	3.10	4.93	5.00	4.20	4.30	14	16	8	1	3.40	
7	9	14	26	39	64	18	42	36	101	4.36	3.86	4.23	4.43	4.22	10	20	11	1	5.36	
4	8	34	86	34	87	24	59	12	23	....	....	....	....	....	19	11	9	2	3.41	
1	1	17	30	15	25	30	50	22	46	1.50	1.50	1.80	2.30	1.77	2	28	10	2	3.49	
33	87	0	0	27	107	1	4	40	136	1.36	1.93	1.40	2.26	1.73	2	28	12	4	2.24	
6	7	24	31	19	30	19	44	11	22	2.63	2.96	2.70	3.66	2.98	6	24	7	2	2.65	
9	26	24	66	26	96	24	92	24	14	1.30	1.20	2.26	2.73	1.87	2	28	9	0	1.21	
3	3	6	8	12	22	49	93	26	87	2.70	3.76	3.73	4.06	3.81	10	20	10	2	2.02	
0	0	0	0	9	12	60	66	41	46	4.56	4.53	4.96	5.36	4.85	15	15	3	2	2.90	Therm. protected.
3	3	12	20	36	63	26	45	21	44	3.96	4.13	4.13	5.46	4.42	14	16	6	2	4.70	
16	18	0	0	26	38	28	65	32	74	3.28	4.28	4.00	6.40	4.49	15	15	6	0	1.22	
4	8	4	14	32	82	23	67	28	71	4.83	4.98	4.30	6.23	5.08	14	16	6	0	2.10	
1	4	2	8	17	57	72	251	21	82	6.53	6.90	6.36	6.86	6.66	23	7	2	0	0.20	
1	1	1	1	51	55	23	34	22	30	5.90	6.40	6.40	7.40	6.52	21	9	3	0	0.50	
1	1	25	33	2	5	45	74	7	10	9.33	8.83	9.00	9.50	9.16	29	1	2	0	0.22	
2	5	7	9	7	23	10	29	11	32	5.40	5.50	4.10	8.70	5.92	20	10	3	0	0.43	
2	3	10	11	7	10	13	22	12	22	6.50	8.30	7.60	7.20	7.40	23	7	7	0	1.00	
8	21	10	13	3	6	9	17	6	24	5.13	5.63	6.06	6.60	5.85	20	10	4	0	2.93	
7	11	0	0	11	17	1	3	61	148	5.10	6.66	5.83	7.50	6.29	22	8	4	0	4.99	
12	22	0	0	6	10	17	31	1	2	3.36	7.36	7.83	3.43	5.49	23	7	10	0	5.00	
10	14	4	4	2	2	2	4	8	15	2.10	3.20	4.10	2.90	3.07	8	22	6	1	2.50	
12	24	19	38	0	0	3	5	10	43	3.56	3.20	4.73	6.10	4.40	14	16	11	0	3.56	
17	23	5	7	7	12	9	15	24	53	4.80	5.96	6.30	7.10	6.04	20	10	3	2	1.19	
14	26	25	36	28	43	22	27	5	16	5.70	6.40	6.20	6.22	6.13	20	10	5	1	2.40	
1	1	0	0	23	25	16	19	32	53	5.83	6.63	7.06	8.73	7.06	21	9	3	1	1.13	
29	30	39	39	4	4	4	4	9	11	1.83	5.14	5.30	5.83	4.52	13	17	3	1	0.85	
3	8	16	34	29	54	10	15	32	43	5.49	6.03	5.80	6.43	5.91	20	10	2	3	0.97	
29	58	0	0	21	41	0	0	68	149	4.13	5.06	5.50	5.66	5.08	18	12	3	1	1.35	
9	9	9	10	20	20	24	24	18	18	6.66	7.40	7.70	6.90	7.16	23	7	4	2	1.73	
1	1	6	14	7	36	82	110	8	21	2.70	3.70	3.40	4.60	3.60	13	17	7	5	1.50	
14	31	25	64	35	86	11	24	24	87	2.00	2.50	3.00	4.10	2.90	8	22	3	6	1.83	
4	7	7	18	6	15	35	124	19	59	2.66	2.66	3.00	4.93	3.31	7	23	6	8	1.73	
32	31	9	9	6	9	11	17	30	90	1.80	2.10	2.60	5.30	2.90	5	25	4	7	1.87	
2	6	5	14	14	45	26	93	46	154	1.76	1.86	2.30	2.73	2.13	5	25	2	14	2.91	
5	12	17	24	10	15	7	12	37	85	6.53	6.76	6.33	7.83	6.86	21	9	1	4	0.15	
8	9	6	6	25	43	29	55	41	89	4.80	5.66	5.83	3.40	4.92	17	13	2	4	0.40	
15	16	15	23	3	3	2	6	25	36	6.46	7.41	6.90	7.16	6.98	24	6	0	1	0.82	

MONTH OF DECEMBER, 1845.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	27.93	28.93	31.84	28.41	29.28	46	12	16.7	17.3	36	142	25	99	3	5
Fort Trumbull	25.33	27.15	32.41	26.83	27.93	55	10	27.1	17.9	43	121	16	50	0	0
Fort Hamilton	26.71	28.13	33.32	27.74	28.97	46	14	17.0	15.0	18	68	39	109	1	2
Fort Columbus	26.42	27.84	30.90	27.94	28.27	42	12	13.7	16.3	4	4	22	29	5	5
West Point	22.29	23.42	26.93	23.84	24.12	41	3	16.9	21.1	10	31	2	5	0	0
Watervliet Arsenal	12.68	17.52	22.81	15.71	17.18	33	— 8	15.8	25.2	9	15	0	0	0	0
Plattsburg Barracks	13.20	15.10	20.30	15.50	16.02	34	—15	18.0	31.0	23	35	20	31	1	1
Madison Barracks	14.58	15.90	21.80	18.03	17.58	38	—17	20.4	34.6	5	20	38	90	4	9
Fort Ontario	19.97	21.22	25.22	21.74	22.04	40	1	18.0	21.0	36	63	15	25	6	7
Fort Niagara	22.77	23.77	26.77	24.03	24.33	39	10	14.7	14.3	7	39	6	17	5	8
Alleghany Arsenal	20.60	21.51	28.38	21.93	23.10	40	0	16.9	23.1	13	16	1	1	27	27
Carlisle Barracks	26.58	27.87	30.77	28.20	28.35	39	12	10.6	16.4	5	6	16	22	6	6
Fort Mifflin	25.96	28.32	32.32	27.75	28.59	44	12	15.4	16.6	12	16	18	36	0	0
Fort McHenry	24.19	26.14	31.13	26.80	27.07	42	9	14.9	18.1	11	38	29	23	1	2
Fort Monroe	33.16	34.35	39.35	32.22	34.77	51	14	16.2	20.8	10	20	25	67	7	13
Fort Moultrie	40.16	45.96	48.41	43.93	44.61	62	19	17.4	25.6	20	81	13	49	6	21
Augusta Arsenal	34.35	35.90	44.33	40.45	38.76	64	10	25.2	28.8	35	35	11	11	6	6
Oglethorpe Barracks	39.55	43.16	50.45	46.90	45.01	73	20	28.0	25.0	36	56	3	6	10	13
Fort Marion	45.00	52.00	55.00	49.00	50.25	76	23	25.7	27.3	7	19	21	86	5	17
Fort Brooke	50.51	55.19	62.77	54.49	55.74	76	34	20.3	21.7	26	55	52	90	7	9
Barrancas Barracks	41.64	44.22	51.48	46.13	45.37	70	21	24.6	24.4	33	63	45	96	16	40
Mount Vernon Arsenal	36.90	42.40	49.51	41.30	42.53	70	16	27.5	26.5	3	7	31	78	9	24
Fort Pike	41.20	44.45	50.41	45.48	45.38	69	22	23.6	23.4	10	34	26	67	10	27
Baton Rouge	39.35	48.06	55.22	46.29	47.23	68	21	20.8	26.2	11	22	30	60	64	114
Fort Jesup	38.32	44.00	49.93	43.39	43.91	68	17	24.1	26.9	25	36	5	5	12	12
Corpus Christi	47.22	50.06	57.61	52.80	51.92	72	23	20.1	28.9	22	57	41	102	14	20
Fort Towson	29.03	33.80	44.00	36.32	35.79	60	0	24.2	35.8	15	39	27	52	34	79
Fort Washita	31.60	37.29	49.28	38.15	39.08	66	11	26.9	28.1	25	47	22	41	12	19
Fort Smith	23.84	30.03	40.87	30.80	31.38	55	0	23.6	31.4	7	10	30	41	30	37
Fort Gibson	29.39	32.72	41.53	33.97	34.40	59	8	24.6	26.4	8	10	24	28	2	2
Fort Scott	19.90	24.12	31.93	25.55	25.37	56	— 9	30.6	34.4	6	13	13	22	7	13
Jefferson Barracks	20.35	23.58	31.12	25.06	25.03	54	— 6	29.0	31.0	4	6	1	2	1	1
St. Louis Arsenal	18.00	24.80	31.60	22.14	24.13	54	— 6	29.9	30.1	37	21	14	14	8	8
Detroit Barracks	19.70	21.10	26.10	20.90	21.95	40	— 4	18.0	26.0	13	24	1	3	5	14
Fort Gratiot	17.42	19.16	25.74	20.23	20.64	38	— 3	17.4	23.6	3	12	10	33	1	1
Fort Mackinac	18.32	19.06	22.16	19.92	19.86	34	— 8	14.1	27.9	16	36	21	39	2	9
Fort Brady	15.00	18.00	24.00	16.60	18.25	38	—17	19.7	35.3	4	4	7	8	12	12
Fort Wilkins	16.38	19.06	20.12	18.16	18.43	38	— 4	19.6	22.4	17	59	3	8	0	0
Fort Atkinson	14.64	16.29	20.06	15.87	16.71	40	—17	23.3	33.7	41	92	6	11	4	5
Fort Snelling	9.41	11.09	20.41	15.51	14.10	46	—12	21.9	26.1	0	0	0	0	7	10
Fort Leavenworth	17.77	28.68	34.80	25.41	26.66	56	— 4	29.3	30.7	23	30	12	27	29	38

MONTH OF DECEMBER, 1845.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	7	1	5	8	17	13	31	35	145	4.22	4.61	4.00	5.03	4.46	15	16	7	4	3.44	
2	8	1	2	3	9	24	64	35	91	4.96	4.93	4.51	5.22	4.90	17	14	5	5	4.72	
0	0	1	4	5	23	27	114	30	130	5.84	5.19	4.09	5.16	5.07	15	16	2	7	3.45	
0	0	4	4	9	10	23	38	57	108	2.84	5.00	3.84	3.58	3.81	11	20	2	6	2.51	
4	6	0	0	21	29	15	27	72	164	4.80	4.51	4.26	3.77	4.33	14	17	1	8	3.24	
0	0	16	31	21	42	20	40	62	90	....	....	....	....	....	16	15	3	6	2.55	
0	0	11	21	10	11	35	51	24	44	2.70	3.00	3.30	3.20	3.02	8	23	1	5	1.20	
28	65	4	12	14	51	1	5	30	116	1.35	1.64	2.03	3.03	2.01	6	25	0	12	1.27	
13	14	10	14	30	33	7	13	7	11	2.00	2.22	2.87	3.22	2.57	5	26	4	7	3.62	
4	12	35	85	35	139	18	84	14	63	1.51	1.70	2.32	2.12	1.91	3	28	0	3	0.31	
5	5	6	7	21	42	25	64	26	62	3.30	3.22	4.48	4.25	3.81	11	20	2	7	1.19	
2	2	0	0	2	2	47	54	46	64	4.83	5.06	5.87	6.45	5.30	17	14	1	7	5.83	
0	0	7	7	19	20	29	60	39	73	3.16	4.13	3.93	3.83	3.76	12	19	4	7	8.40	
10	10	0	0	4	5	39	59	30	72	3.29	3.30	4.10	5.80	4.12	13	18	4	3	3.43	
1	2	3	6	9	17	26	48	43	124	4.45	5.06	4.03	5.93	4.86	15	16	10	1	4.04	
5	15	5	19	19	72	38	125	18	63	4.83	5.22	4.87	5.67	5.14	15	16	10	0	6.07	
0	0	2	2	28	28	16	23	26	32	4.90	4.51	4.86	6.32	6.14	15	16	3	0	6.00	
4	4	18	21	4	4	49	73	0	0	6.29	6.00	6.45	6.90	6.41	19	12	9	0	3.96	
2	6	1	3	6	16	16	31	26	79	3.10	4.00	3.29	4.90	4.00	14	17	10	0	3.08	
3	3	14	19	7	10	4	4	11	25	4.09	4.29	4.25	5.48	4.52	13	18	10	0	3.61	
3	7	9	17	0	0	3	4	7	31	3.39	3.94	3.90	4.39	3.88	11	20	12	0	4.14	
17	33	1	1	0	0	4	8	59	170	3.74	4.13	4.50	4.77	4.28	13	18	11	0	6.34	
4	8	2	4	16	28	8	20	44	137	3.03	3.90	4.16	4.22	3.58	12	19	10	0	3.30	
2	4	0	0	2	4	8	14	7	12	3.58	6.38	6.70	3.00	4.91	20	11	10	0	5.30	
14	14	30	32	4	4	5	7	21	27	3.10	3.20	3.50	4.00	3.45	13	18	13	0	2.80	
14	28	1	1	2	5	3	3	21	38	1.90	1.90	1.70	3.12	2.16	5	26	12	0	4.70	
6	13	3	7	1	3	4	6	34	89	3.74	4.03	4.16	5.74	4.41	11	20	6	1	1.81	
14	29	28	48	11	23	10	17	2	3	4.80	5.20	5.10	6.13	5.30	17	14	2	7	1.90	
4	4	3	6	13	15	23	29	14	17	4.19	4.00	4.97	6.10	4.81	14	17	5	1	1.06	
52	55	20	21	2	2	10	10	6	6	2.48	4.00	4.32	5.42	4.05	13	18	1	0	0.03	
11	23	14	30	38	67	11	19	24	46	5.36	6.03	5.67	6.45	5.92	19	12	1	2	0.39	
27	59	1	2	20	36	7	18	63	120	2.29	4.29	4.87	5.67	4.28	14	17	2	1	0.80	
9	9	5	5	17	70	21	21	13	50	7.27	7.20	6.22	6.24	6.73	27	4	3	1	0.41	
5	11	22	44	22	65	19	37	31	79	2.90	2.30	3.20	4.30	3.18	10	21	1	9	0.50	
21	51	37	103	30	92	3	8	19	44	2.45	2.19	2.80	3.32	2.69	7	24	3	7	0.72	
9	14	24	81	16	45	25	79	11	25	1.58	2.16	2.41	4.00	2.53	2	29	1	12	0.30	
44	45	17	17	14	14	7	10	19	39	1.90	2.20	1.90	3.40	2.30	5	26	1	8	1.28	
9	31	22	74	26	73	11	36	36	141	0.93	1.53	1.73	2.50	1.67	5	26	0	13	2.45	
13	27	24	36	16	43	6	9	14	28	4.29	4.74	4.90	5.80	4.93	16	15	0	6	0.35	
33	61	7	7	19	26	26	47	32	71	3.00	4.96	4.80	3.03	3.94	13	18	0	6	0.08	
14	35	35	65	5	10	3	4	3	7	5.48	6.32	6.32	7.91	6.50	21	10	0	0	0.00	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Kent..........	47 15	68 35	575	7.44	12.31	20.94	32.26	44.49	57.49	61.73	61.78	......
Hancock Barracks. ..	46 07	67 49	620	15.39	16.59	26.82	37.47	48.77	60.01	62.92	64.82	......
Fort Sullivan	44 54	66 58	70	23.63	24.11	31.45	40.78	47.07	57.45	60.24	63.24	......
Fort Preble..........	43 39	70 20	20	23.67	22.50	30.97	40.70	51.85	62.27	65.52	66.17	56.57
Fort Constitution	43 04	70 49	40	26.00	24.99	33.86	42.01	52.99	61.28	67.86	66.80	......
Fort Adams.........	41 30	71 19	40	32.49	28.91	37.78	44.92	53.55	64.36	71.83	72.22	62.84
Fort Trumbull......	41 22	72 05	50	31.44	28.77	37.94	45.06	54.00	65.16	70.23	71.35	62.56
Fort Hamilton.......	40 37	74 02	25	34.55	31.91	41.61	49.59	58.33	68.73	74.48	75.42	65.97
Fort Columbus......	40 42	74 01	23	35.03	31.95	42.12	50.79	60.54	71.30	76.60	76.04	65.49
West Point	41 23	74 00	167	28.53	28.20	39.62	48.06	57.79	69.06	74.36	74.18	61.79
Watervliet Arsenal ..	42 50	73 55	50	25.78	26.84	40.65	48.34	55.86	69.31	74.51	72.47	55.61
Plattsburg Barracks..	44 41	73 30	186	18.68	19.50	30.83	39.87	51.41	63.81	67.42	68.15	54.65
Madison Barracks....	43 57	76 15	262	21.73	21.85	34.61	43.06	50.74	62.00	66.88	68.92	56.85
Fort Ontario	43 20	76 40	250	25.66	25.77	36.46	43.09	49.74	61.83	67.44	69.06	58.50
Fort Niagara........	43 18	79 08	250	29.02	29.17	38.83	44.55	55.00	65.01	70.58	70.32	60.73
Buffalo Barracks.....	42 53	78 58	660	28.07	28.36	37.23	45.56	52.21	64.75	70.61	......	......
Alleghany Arsenal...	40 32	80 12	704	33.53	31.35	39.49	53.59	58.34	69.12	70.60	72.41	62.10
Carlisle Barracks	40 12	77 14	?	35.80	32.86	43.56	54.11	62.42	75.95	80.35	78.91	71.50
Fort Mifflin	39 51	75 15	40	36.43	33.56	44.97	52.97	60.84	71.76	76.58	75.41	66.67
Fort McHenry.......	39 18	76 33	36	36.85	34.09	44.13	54.55	60.55	71.77	76.07	72.90	67.05
Fort Severn.........	38 58	76 27	20	39.31	36.51	46.59	55.60	62.50	73.35	77.72	......	......
Fort Monroe	37 00	76 15	20	44.79	42.74	51.01	58.58	65.94	76.30	79.02	77.95	72.00
Fort Johnston........	34 00	78 05	20	50.94	48.99	56.55	66.44	70.74	79.30	82.76	......	......
Augusta Arsenal.....	33 28	81 53	600?	51.40	52.92	57.19	70.55	72.96	83.47	87.48	80.94	74.85
Fort Moultrie	32 42	79 56	20	54.78	53.11	59.20	68.87	72.43	80.67	82.84	80.52	73.17
Oglethorpe Barracks..	32 05	81 07	40	52.52	53.62	59.50	72.02	73.67	81.40	83.14	80.87	77.12
Fort Marion.........	29 50	81 30	12	59.32	59.18	63.68	71.60	72.95	79.89	82.82	......	77.77
Key West...........	24 20	81 49	20	69.98	68.90	74.06	77.05	78.63	80.68	83.52	......	......
Fort Brooke.........	28 00	82 28	20	62.00	60.82	67.25	73.91	75.24	79.56	79.42	79.18	77.59
Camp Barrancas......	30 18	87 27	20	54.96	56.17	60.74	70.86	73.54	79.26	81.40	......	......
Mt. Vernon Arsenal..	31 12	88 20	75	51.30	53.14	55.73	70.49	73.59	80.08	81.36	81.04	74.30
Fort Pike............	30 10	89 38	20	55.29	57.70	61.65	73.64	75.96	82.59	83.97	......	......
Fort Wood..........	30 08	89 51	20	55.59	58.05	61.33	73.49	75.76	80.76	82.60	82.15	78.21
Pass Christian.......	30 20	89 25	20	......	......	......	......	......	......	82.70	......	......
New Orleans........	29 57	90 00	20	57.25	59.91	62.11	72.75	73.20	79.46	......	......	......
Baton Rouge........	30 26	91 18	41	54.79	56.77	59.86	70.99	73.90	79.80	80.92	80.65	76.63
Fort Jesup	31 33	93 32	80?	51.72	55.65	57.42	68.64	70.49	77.41	81.10	......	76.56
Camp Salubrity	31 40	93 15	80?	53.75	60.00	60.50	70.50	73.00	80.00	......	......	......
Corpus Christi.......	27 47	97 27	20	......	......	......	......	......	......	......	......	......
Fort Towson........	34 00	95 33	150?	46.57	50.71	52.20	67.70	68.49	77.31	81.59	79.73	75.44
Fort Washita	34 09	96 27	200?	47.29	53.64	53.17	69.18	69.25	78.38	84.31	79.18	76.06
Fort Smith..........	35 23	94 29	460	43.49	47.39	50.05	68.82	68.50	78.61	82.47	78.27	72.55
Fort Gibson.........	35 47	95 10	542	46.24	50.65	50.54	68.46	67.02	77.25	83.30	78.94	75.58
Fort Scott..........	37 45	94 35	1000?	39.94	42.71	45.85	62.50	65.01	72.23	78.34	76.02	69.20
Jefferson Barracks ...	38 28	90 15	382	39.13	43.05	46.32	65.63	66.86	77.62	79.85	76.50	70.40
St. Louis Arsenal....	38 40	90 05	450	38.69	40.51	44.34	60.99	61.71	73.50	79.32	75.85	75.03
Detroit Barracks.....	42 20	82 58	580	30.07	29.92	39.70	48.60	55.40	66.17	70.92	71.92	59.70
Fort Gratiot.........	42 55	82 23	598	28.46	29.43	38.49	44.49	52.18	63.18	69.52	69.69	58.81

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1845.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
......	......	......	32.56	60.33	......	......	......	90	—39	....	....	Maine.
......	......	......	37.69	62.58	......	......	......	89	—19	....	....	Maine.
......	......	......	39.77	60.31	......	......	......	86	—10	....	....	Maine.
......	......	......	41.17	64.65	......	......	......	83	— 6	....	....	Maine.
......	......	......	42.95	65.31	......	......	......	91	1	....	....	New Hampshire.
53.87	46.67	29.28	45.41	69.47	54.46	30.21	49.89	90	5	40.1	44.9	Rhode Island.
54.36	46.39	27.93	45.67	68.91	54.44	29.38	49.60	90	4	40.4	45.6	Connecticut.
57.24	47.18	28.97	49.84	72.88	56.80	31.81	52.83	99	8	46.2	44.8	New York.
62.81	45.68	28.27	51.15	74.65	57.99	31.75	53.88	99	6	45.1	47.9	New York.
52.60	43.32	24.12	48.49	72.53	52.57	26.95	50.13	96	3	45.9	47.1	New York.
48.86	39.80	17.18	48.28	72.10	48.09	23.27	47.93	98	— 8	50.1	55.9	New York.
48.17	37.15	16.02	40.70	66.46	46.66	18.07	42.97	92	—16	49.0	59.0	New York.
49.94	37.76	17.58	42.80	65.93	48.18	20.39	44.32	94	—17	49.7	61.3	New York.
49.89	39.55	22.04	43.10	66.11	49.31	24.49	45.78	89	— 3	43.2	48.8	New York.
50.67	39.45	24.33	46.13	68.64	50.28	27.51	48.14	92	10	43.9	38.1	New York.
......	......	......	45.00	......	......	......	......	92	4	....	....	New York.
47.38	38.07	23.10	50.47	70.71	49.18	29.33	49.92	96	0	46.1	49.9	Pennsylvania.
57.16	46.80	28.35	53.36	78.40	58.49	32.34	55.65	98	12	42.3	43.7	Pennsylvania.
53.95	44.57	28.59	52.93	74.58	55.06	32.86	53.86	97	8	43.1	45.9	Pennsylvania.
54.37	43.57	27.07	53.08	73.58	55.00	32.67	53.56	97	13	43.5	40.5	Maryland.
......	......	......	54.90	......	......	......	......	95	15	....	....	Maryland.
61.07	51.70	34.77	58.51	77.76	61.59	40.77	59.66	96	14	36.3	45.7	Virginia.
......	......	......	64.58	......	......	......	......	95	26	....	....	North Carolina.
62.86	50.71	38.76	66.90	83.96	62.81	47.69	65.34	103	10	37.7	55.3	Georgia.
67.31	57.55	44.61	66.83	81.34	66.01	50.83	66.25	92	19	25.7	47.3	South Carolina.
66.70	56.51	45.01	68.40	81.80	66.78	50.38	66.84	102	20	35.2	46.8	Georgia.
72.87	61.92	50.25	69.41	......	70.85	56.25	......	92	23	....	....	Florida.
......	......	......	76.58	......	......	......	......	91	54	....	....	Florida.
72.74	62.62	55.74	72.13	79.39	70.98	59.53	70.50	88	34	17.5	36.5	Florida.
......	56.91	45.37	68.38	......	......	52.17	......	98	21	....	....	Florida.
62.62	53.03	42.53	66.60	80.83	63.32	48.99	64.93	99	16	34.1	48.9	Alabama.
......	......	45.38	70.42	......	......	52.79	......	96	22	....	....	Louisiana.
67.03	......	......	70.19	81.84	......	......	......	100	23	....	....	Louisiana.
......	......	......	......	......	......	......	......	95	....	....	....	Louisiana.
......	......	......	69.35	......	......	......	......	....	....	....	....	Louisiana.
66.23	57.68	47.23	68.25	80.46	66.85	52.93	67.12	99	21	31.8	46.2	Louisiana.
65.57	57.92	43.91	65.52	......	66.68	50.43	......	97	17	....	....	Louisiana.
......	......	......	68.00	......	......	......	......	....	....	....	....	Near Nachitoches, Louisiana.
......	62.22	51.92	......	......	......	......	......	....	....	....	....	Corpus Christi Bay, Southern Texas.
60.10	49.50	35.79	62.80	79.54	61.68	44.36	62.09	102	0	39.9	62.1	Indian Territory.
60.71	49.52	39.08	63.87	80.62	62.10	46.67	63.31	106	11	42.7	52.3	Indian Territory.
55.34	44.98	31.38	62.46	79.78	57.62	40.75	60.15	100	0	40.0	60.0	Arkansas.
58.25	47.12	34.40	62.01	79.83	60.32	43.76	61.48	99	8	37.5	53.5	Indian Territory.
52.23	39.61	25.37	57.79	75.53	53.68	36.01	55.75	98	—10	42.3	65.7	Missouri.
54.45	41.58	25.03	59.60	77.99	55.48	35.74	57.20	100	— 6	42.8	63.2	Missouri.
53.95	40.55	24.13	55.68	76.22	56.51	34.44	55.71	99	— 6	43.3	61.7	Missouri.
48.85	35.50	21.95	47.90	69.67	48.01	27.31	48.22	90	— 4	41.8	52.2	Michigan.
47.94	36.05	20.64	45.05	67.46	47.60	26.18	46.57	96	— 3	49.4	49.6	Michigan.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Mackinac.......	45 51	84 38	728	22.67	22.53	30.01	36.33	47.78	56.60	64.15	64.45	53.76
Fort Brady..........	46 30	84 43	600	17.90	19.75	27.30	35.57	44.52	56.27	61.20	63.77	54.92
Fort Wilkins........	47 30	88 00	620	21.40	23.70	25.99	36.88	44.80	55.85	63.80	61.24	55.75
Fort Winnebago.....	43 31	89 28	770?	23.53	27.54	34.96	48.40	57.41	66.57	72.22	69.66	......
Fort Crawford.......	43 05	91 00	642	24.43	28.06	38.27	52.57	61.01	68.07	75.25	72.33	......
Fort Atkinson.......	43 00	92 00	700?	22.48	26.59	34.90	49.00	58.67	66.34	73.53	69.35	59.59
Fort Snelling........	44 53	93 10	820	19.49	25.60	34.57	47.62	60.83	67.64	74.19	69.47	59.79
Fort Des Moines......	41 32	93 38	780?	28.96	32.08	40.20	52.30	59.11	67.99	76.52	71.86	62.98
Fort Leavenworth ...	39 21	94 44	896	36.65	37.52	44.44	59.55	63.29	70.27	78.70	75.62	69.53

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1845.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
44.10	31.78	19.86	38.04	61.73	43.21	21.69	41.17	80	— 8	38.8	49.2	Michigan.
45.42	31.50	18.25	35.80	60.41	43.98	18.63	39.70	92	—16	52.3	55.7	Michigan.
44.18	30.81	18.43	35.89	60.30	43.58	21.18	40.24	94	— 4	53.8	44.2	Copper Harbor, Lake Superior, Mich.
......	......	......	46.92	69.48	......	......	......	94	....	....	....	Wisconsin.
......	......	......	50.62	71.88	......	......	......	93	....	....	....	Wisconsin.
45.20	31.02	16.71	47.52	69.74	45.27	21.93	46.11	95	—17	48.9	63.1	Iowa.
45.64	29.50	14.10	47.67	70.43	44.98	19.73	45.70	94	—12	48.3	57.7	Minnesota.
......	......	......	50.54	72.12	......	......	......	98	....	....	....	Iowa.
52.96	41.14	26.66	55.76	74.86	54.54	33.61	54.69	99	—14	34.3	68.7	Missouri, (Kansas.)

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1845.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Kent	3.75	2.60	1.77	1.06	2.63	1.36	7.72	2.57	....	....	....	....	5.46	11.65	....	....	....
Hancock Barracks	4.37	1.73	1.70	1.48	2.51	2.10	8.86	2.15	....	....	....	....	5.69	13.11	....	....	....
Fort Sullivan	3.12	2.62	2.25	2.53	5.17	2.00	6.51	3.85	....	....	....	....	9.95	12.36	....	....	....
Fort Preble	3.75	2.07	2.37	1.44	3.14	1.56	5.86	2.93	2.57	....	....	....	6.95	10.35	....	....	....
Fort Constitution	3.01	2.88	3.20	1.15	3.15	1.89	7.33	2.72	....	....	....	....	7.50	11.94	....	....	....
Fort Adams	2.90	3.15	2.49	1.67	3.22	2.31	2.78	3.54	2.96	4.74	9.49	3.44	7.38	8.63	17.19	9.49	42.69
Fort Trumbull	3.54	3.57	3.40	3.00	2.89	3.05	3.69	1.60	1.74	3.65	7.96	4.72	10.29	8.34	13.35	11.83	43.81
Fort Hamilton	4.26	5.70	2.21	1.00	1.47	3.60	1.95	4.48	2.28	1.76	2.95	3.45	4.68	10.13	6.99	13.41	35.21
Fort Columbus	4.87	3.22	3.33	1.22	1.75	3.70	1.75	3.21	2.62	2.50	3.40	2.51	6.30	8.66	8.52	10.60	34.08
West Point	5.15	2.88	3.40	1.80	4.10	1.82	2.38	7.72	2.60	2.93	5.36	3 24	9.30	11.92	10.89	11.27	43.38
Watervliet Arsenal	4.25	2.95	3.36	3.25	5.02	2.09	3.31	1.19	3.12	2.04	3.41	2.55	11.63	6.59	3.57	9.75	36.54
Plattsburg Barracks	2.84	2.67	2.09	2.02	1.83	2.15	2.09	1.31	3.66	2.26	3.49	1.20	5.94	5.55	9.41	6.73	27.63
Madison Barracks	3.50	2.92	2.55	2.04	4.16	1.85	5.45	0.57	3.18	2.64	2.24	1.27	8.75	7.87	8.06	7.69	32.37
Fort Ontario	3.01	2.68	0.85	2.48	2.39	4.73	1.58	....	3.63	5.60	2.65	3.62	5.62	...	11.88	9.31	....
Fort Niagara	1.75	1.17	1.94	2.07	2.57	1.16	1.14	2.81	3.06	1.42	1.21	0.31	6.58	5.11	5.69	3.23	?20.61
Buffalo Barracks	4.08	2.29	2.91	2.70	1.78	1.96	1.54	....	....	....	....	....	7.39	....	....	....	....
Alleghany Arsenal	2.85	1.50	3.04	2.51	1.18	4.04	3.74	3.06	3.39	3.37	2.02	1.19	6.73	10.84	8.78	5.54	31.89
Carlisle Barracks	4.74	6.12	5.93	2.68	4.03	10.45	2.18	5.94	3.25	9.70	2.90	5.83	12.64	18.57	15.85	16.69	63.75
Fort Mifflin	7.90	8.20	5.40	4.50	4.30	9.00	6.20	15.20	5.10	4.60	4.70	8.40	14.20	30.40	14.40	24.50	83.50
Fort McHenry	2.40	3.59	1.70	1.49	2.36	2.93	1.26	2.77	1.51	3 73	1.22	3.43	5.55	6.96	6.46	9.42	28.39
Fort Severn	3.69	5.10	2.85	2.25	3.24	6.94	3.18	....	....	....	....	....	8.34	....	....	....	....
Fort Monroe	1.88	2.42	1.20	2.48	7.70	6.06	3.26	9.98	4.65	2.00	2.10	4.04	11.38	19.30	8.75	8.34	47.77
Fort Johnston	1.85	2.00	2.99	0.48	3.94	1.61	1.93	....	....	....	....	....	7.41	....	....	....	....
Augusta Arsenal	1.90	0.62	0.78	0.05	1.07	1.20	0.35	2.62	0.53	3.51	0.50	6.00	1.90	4.17	4.54	8.52	19.13
Fort Moultrie	3.42	0.95	1.95	0.10	6.53	2.19	6.05	5.90	2.60	7.55	0.20	6.07	8.58	14.14	10.35	10.44	43.51
Oglethorpe Barracks	2.85	0.05	2.21	0.20	5.30	2.37	2.80	9.94	2.21	5.94	0.22	3.96	7.71	15.11	8.37	6.86	38.05
Fort Marion	1.98	0.50	2.05	0.60	2.63	0.59	4.11	....	4.81	6.06	0.43	3.08	5.28	....	11.31	5.56	....
Key West	4.42	0.14	3.67	2.06	4.33	6.07	5.00	....	....	....	....	....	10.10	....	....	....	....
Fort Brooke	3.80	0.15	0.40	0.20	4.03	4.51	12.30	8.23	12.69	2.14	1.00	3.61	4.63	25.04	15.83	7.56	53.06
Barrancas Barracks	4.17	1.16	5.00	0.42	3.69	1.37	3.46	....	....	....	2.93	4.14	9.11	....	....	9.47	....
Mount Vernon Arsenal	11.30	8.37	4.52	1.79	2.54	2.19	2.73	6.48	5.40	11.87	4.49	6.34	8.85	11.40	22.26	26.01	68.52
Fort Pike	4.42	2.23	3.65	0.99	2.69	0.73	1.40?	....	....	....	....	3.30	7.33	....	....	....	....
Fort Wood	5.42	1.28	5.35	1.42	7.31	0.95	4.01	3.78	5.24	10.49	....	....	14.08	8.74	....	....	....
Pass Christian	....	....	....	....	....	....	2.70	....	....	....	....	....	....	....	....	....	....
New Orleans	6.24	1.19	5.16	1.99	8.06	3.20	....	....	....	....	....	....	15.21	....	....	....	....
Baton Rouge	4.90	1.80	5.90	4.80	3.10	4.40	6.40	2.30	3.60	3.10	5.00	5.30	13.80	13.10	11.70	12.00	50.60
Fort Jesup	8.32	1.80	3.55	4.12	4.43	1.43	0.50?	....	1.90?	0.60?	2.50	2.80	12.10	....	5.00?	12.92	....
Corpus Christi	....	....	....	....	....	....	....	....	....	....	3.56	4.70	....	....	....	....	....
Fort Towson	3.00	0.70	5.73	3.49	5.17	6.35	0.00	3.26	2.48	4.90	1.19	1.81	14.39	9.61	7.57	5.51	37.08
Fort Washita	1.35	0.66	5.48	5.04	4.50	2.62	0.33	4.12	2.65	3.65	2.40	1.90	15.02	7.07	8.70	3.91	34.70
Fort Smith	2.29	1.20	5.05	1.96	3.67	2.85	0.51	9.14	1.60	2.90	1.13	1.06	10.68	11.25	5.63	4.55	32.11
Fort Gibson	1.36	0.80	2.95	8.08	2.01	2.18	1.45	1.63	1.44	3.49	0.85	0.03	13.04	5.26	5.78	2.19	26.27
Fort Scott	0.70	2.33	0.94	5.39	8.16	24.56	4.57	7.18	3.35	3.05	0.97	0.39	14.49	36.31	7.37	3.42	61.59
Jefferson Barracks	1.18	0.84	3.24	1.71	2.35	9.78	3.89	4.53	1.71	0.63	1.35	0.80	7.30	18.20	3.69	2.82	32.01
St. Louis Arsenal	1.12	1.74	4.04	3.67	3.05	13.75	0.03	7.45	0.59	1.91	1.73	0.41	10.76	21.23	4.23	3.27	39.49

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1845.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Detroit Barracks	1.71	0.63	1.89	3.29	1.03	2.30	1.92	1.32	3.82	1.60	1.50	0.50	6.21	5.54	6.92	2.84	21.51
Fort Gratiot	2.95	1.16	2.62	2.31	1.83	2.73	1.67	2.16	4.30	2.44	1.83	0.72	6.76	6.56	8.57	4.83	26.72
Fort Mackinac	2.05	1.05	1.18	0.71	0.92	1.26	2.83	1.08	5.15	1.56	1.73	0.30	2.81	5.17	8.46	3.40	19.84
Fort Brady	1.66	1.88	2.29	2.26	2.19	1.43	4.36	3.94	2.64	3.95	1.87	1.28	6.74	9.73	8.47	4.82	29.76
Fort Winnebago	0.67	2.49	3.10	2.67	1.46	4.09	4.37	1.53	....	....	....	....	7.23	9.99	....	....	....
Fort Crawford	1.10	2.79	2.73	3.36	2.40	5.50	3.90	1.35	....	....	....	....	8.49	10.75	....	....	....
Fort Atkinson	0.43	1.63	1.96	2.83	3.23	7.48	7.21	5.07	3.27	1.24	0.15	0.35	8.02	19.76	4.64	2.41	34.83
Fort Snelling	0.49	1.40	2.80	3.15	1.51	6.80	2.56	3.28	2.21	0.66	0.40	0.08	7.46	12.64	3.27	1.97	25.34
Fort Des Moines	1.00	1.32	1.42	3.83	1.61	5.50	0.51	2.34	3.04	....	....	....	6.86	8.35	....	....	....
Fort Leavenworth	0.60	2.20	0.73	2.40	2.30	15.80	0.01	1.70	6.70	1.30	0.82	0.00	5.43	17.51	8.82	2.80	34.56

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	E.	S.	S. W.	W.	N. W.
Fort Adams	149	216	98	15	54	53	19	28	20	75	66	49
Fort Trumbull	187	178	101	22	64	33	9	15	32	75	48	89
Fort Hamilton	231	134	67	15	39	80	19	15	25	83	45	59
Fort Columbus	185	180	81	16	9	67	7	40	10	62	40	129
West Point	191	174	103	22	22	13	3	65	40	51	32	138
Watervliet Arsenal	221	144	79	21	31	3	0	14	119	38	106	53
Plattsburg Barracks	153	212	83	32	66	16	28	3	123	18	91	20
Madison Barracks	107	258	101	34	3	63	4	75	10	119	9	81
Fort Ontario	134	231	78	28	29	45	16	42	39	78	49	65
Fort Niagara	109	256	73	17	23	31	14	33	78	67	65	54
Alleghany Arsenal	179	186	108	22	30	37	35	16	27	60	82	78
Carlisle Barracks	214	151	68	20	7	8	61	17	8	11	182	71
Fort Mifflin	181	184	86	17	31	42	25	19	44	75	67	61
Fort McHenry	165	200	84	10	33	54	22	59	13	65	56	62
Fort Moultrie	270	95	77	0	28	46	36	19	54	69	80	32
Augusta Arsenal	235	130	53	0	31	36	18	40	32	106	45	57
Oglethorpe Barracks	286	79	86	0	78	12	59	5	85	9	108	10
Fort Marion*	229	105	76	0	29	61	42	39	27	27	40	22
Key West†	148	64	55	0	43	16	67	23	38	3	5	7
Fort Brooke	212	153	85	0	42	74	35	32	66	37	46	31
Mt. Vernon Arsenal	219	146	88	0	3	72	7	80	7	59	5	131
Fort Towson	241	124	68	4	51	41	86	81	24	20	14	46
Fort Washita	212	153	75	8	19	14	33	25	162	31	72	8
Fort Smith	263	102	66	3	11	31	119	16	48	52	46	39
Fort Gibson	210	155	49	2	17	58	14	110	98	32	13	22
Fort Scott	231	134	80	12	49	33	36	33	76	60	34	43
Jefferson Barracks ‡	190	169	79	6	29	23	7	56	68	63	24	88
St. Louis Arsenal	280	85	64	7	51	39	43	46	47	45	55	38
Detroit Barracks	156	209	65	28	84	9	41	9	47	35	96	24
Fort Gratiot	111	254	85	30	15	63	14	101	51	56	13	50
Fort Mackinac	139	226	85	55	46	27	32	28	39	60	87	45
Fort Brady	120	245	71	54	22	19	64	66	20	35	78	58
Fort Wilkins	116	249	64	65	43	18	21	31	56	47	83	66
Fort Atkinson	201	164	64	24	65	24	16	31	38	51	47	92
Fort Snelling	207	158	77	22	13	19	31	86	29	46	68	70
Fort Des Moines§	140	130	65	9	44	11	51	17	56	33	127	27
Fort Leavenworth	270	95	51	2	39	48	25	64	76	41	60	60

* Month of August wanting.

† First 7 months only.

‡ No observations taken for 6 days in September.

§ Observations for the first 9 months only.

OBSERVATIONS FOR 1845.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
217	832	212	687	78	218	111	276	79	208	302	937	266	824	195	649
257	626	131	551	37	127	59	190	127	334	301	801	193	448	355	966
157	481	320	919	75	181	59	122	101	264	331	954	182	740	235	943
37	59	267	447	29	42	162	330	42	129	248	426	159	275	516	1038
90	180	55	86	12	16	260	365	159	204	203	257	128	202	553	1060
124	312	11	18	0	0	57	140	476	1312	153	346	424	1129	213	531
266	766	64	166	112	306	11	34	493	1386	71	161	364	936	79	190
11	19	254	748	16	39	302	852	40	133	475	1577	37	114	325	1121
118	231	181	414	65	88	169	260	157	257	313	572	198	445	259	550
92	270	124	386	55	94	132	329	312	830	269	904	260	865	216	780
119	188	147	157	142	142	65	65	108	180	241	536	327	685	311	891
27	34	34	41	244	290	67	75	33	38	43	49	729	817	283	415
126	232	170	329	99	172	78	143	176	353	302	560	270	507	246	522
132	263	217	330	89	89	235	259	53	80	260	448	224	447	250	603
113	407	183	600	146	482	78	223	215	693	276	902	320	1045	129	426
124	219	146	212	71	105	160	244	127	144	426	565	179	350	227	366
311	459	47	78	237	407	19	29	339	569	36	48	431	680	40	71
118	345	246	852	167	466	157	448	109	243	108	267	159	345	89	233
171	496	66	140	267	696	93	220	152	321	11	23	22	44	27	61
169	234	298	456	142	142	130	132	264	264	148	234	186	199	123	252
12	32	287	725	28	68	322	841	28	74	237	660	20	64	526	1560
206	427	166	289	346	602	323	545	95	295	82	184	57	99	185	401
76	158	57	130	132	236	102	191	647	1155	123	227	289	503	34	73
45	72	126	166	478	595	66	89	193	246	214	249	183	266	155	242
69	75	231	248	56	61	440	491	394	468	130	134	52	59	88	165
197	387	132	183	146	257	133	248	305	686	241	464	135	253	171	262
115	271	93	199	28	53	226	503	274	722	251	577	95	239	354	759
206	206	156	156	173	173	184	184	188	188	181	181	219	272	153	153
238	592	36	90	164	365	36	86	187	452	140	411	386	931	98	272
62	212	254	859	57	147	404	1109	204	612	224	680	54	151	201	678
183	505	110	302	128	444	114	301	158	396	239	771	349	1081	179	402
90	181	78	112	258	500	266	473	81	115	140	328	314	779	233	705
171	542	71	187	85	211	123	396	225	714	187	596	333	1017	265	904
260	610	96	246	63	168	123	351	151	383	204	565	189	509	370	1003
54	97	75	100	126	166	344	579	118	139	185	313	273	505	282	582
175	321	43	52	204	207	67	99	224	360	131	296	509	668	107	272
158	234	194	259	99	144	256	463	306	556	165	338	41	77	241	465

MONTH OF JANUARY, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	28.20	29.50	34.00	31.00	30.67	45	6	14.3	24.7	13	57	32	104	4	11
Fort Trumbull	26.38	28.70	35.48	30.19	30.19	47	5	16.8	25.2	28	63	11	48	3	12
Fort Hamilton	29.22	30.38	36.54	31.61	31.94	48	9	16.1	22.9	12	31	21	56	8	18
Fort Columbus	28.70	30.68	35.22	30.90	31.37	46	9	14.6	22.4	5	9	15	24	4	7
West Point	24.74	25.45	31.51	28.22	27.48	47	4	19.5	23.5	7	23	0	0	1	2
Watervliet Arsenal	13.52	18.26	22.58	13.55	16.98	42	— 7	25.0	24.0	32	72	0	0	0	0
Plattsburg Barracks	16.40	17.20	22.50	18.70	18.70	43	— 8	24.3	26.7	28	55	13	27	6	10
Madison Barracks	18.93	20.25	25.06	21.87	21.53	41	—10	19.5	31.5	3	9	33	70	6	11
Fort Ontario	21.30	24.50	28.50	24.70	24.70	43	— 5	18.3	29.7	7	11	34	76	5	11
Fort Niagara	26.83	28.90	31.00	28.29	28.75	44	8	15.2	20.8	8	32	10	38	6	12
Alleghany Arsenal	26.09	28.48	34.06	28.45	29.27	48	3	18.3	26.7	20	37	19	20	9	10
Carlisle Barracks	32.35	33.93	36.80	35.25	34.58	44	18	9.6	16.4	0	0	17	18	8	8
Fort Mifflin	28.16	32.13	37.90	30.71	32.23	56	12	23.8	20.2	9	11	14	27	1	2
Fort McHenry	29.60	31.21	37.19	31.17	32.29	63	14	20.7	18.3	8	12	12	21	4	4
Fort Monroe	37.96	38.93	45.57	41.16	40.90	62	21	21.1	19.9	7	21	9	21	18	31
Fort Moultrie	43.87	52.29	56.06	50.38	50.65	68	31	17.3	19.7	5	12	19	77	9	34
Augusta Arsenal	40.32	42.83	52.58	47.58	45.83	73	25	27.2	20.8	4	4	11	17	0	0
Oglethorpe Barracks	46.71	49.48	59.25	54.13	52.39	72	32	19.6	20.4	29	42	4	12	18	20
Fort Marion	51.00	56.00	65.00	58.00	57.50	78	39	20.5	18.5	16	68	5	29	2	9
Fort Brooke	53.51	59.25	67.93	58.16	59.71	79	33	19.3	26.7	8	18	45	102	10	21
Barrancas Barracks	46.74	51.09	59.22	51.39	52.11	71	30	18.9	22.1	33	47	10	23	28	59
Mount Vernon Arsenal	41.60	48.61	58.64	46.87	48.93	80	26	31.1	22.9	4	7	19	54	5	10
Fort Wood	48.37	55.04	60.96	51.44	53.93	81	30	27.1	23.9	17	45	19	73	20	68
Fort Pike	45.78	49.54	55.64	48.96	49.98	76	28	26.0	22.0	8	16	25	73	5	15
Baton Rouge	43.58	52.80	62.80	50.80	51.99	77	26	22.0	26.0	6	9	13	32	55	105
Corpus Christi	50.64	53.90	63.87	56.77	56.30	84	30	27.7	26.3	11	26	31	62	17	35
San Antonio	42.54	49.45	58.96	48.54	49.87	72	24	22.1	25.9	22	50	6	14	32	61
Fort Towson	32.90	41.00	57.20	43.30	43.60	72	19	28.4	24.6	35	73	14	28	21	29
Fort Washita	39.40	44.10	61.50	46.11	47.80	79	24	31.2	23.8	23	52	7	14	19	34
Fort Smith	31.81	38.64	51.71	37.13	39.82	66	16	26.2	23.8	3	3	15	17	33	43
Fort Gibson	35.98	40.51	52.32	41.81	42.73	70	22	27.3	20.7	11	12	22	22	2	2
Fort Scott	32.03	36.77	45.19	35.32	37.33	62	20	24.7	17.3	7	19	6	6	1	4
Jefferson Barracks	33.32	36.19	44.16	37.41	37.78	57	18	19.2	19.8	0	0	16	36	0	0
St. Louis Arsenal	31.27	37.20	43.17	37.14	37.20	59	20	21.8	17.2	10	10	16	15	12	21
Detroit Barracks	26.00	28.10	34.20	29.00	29.32	50	0	20.7	29.3	20	68	6	13	8	23
Fort Gratiot	23.44	25.35	31.96	25.37	26.53	48	—11	21.5	37.5	19	75	17	53	6	12
Fort Mackinac	21.45	22.85	27.25	24.12	23.92	40	— 1	16.1	24.9	13	26	28	53	10	21
Fort Brady	19.60	23.50	30.00	20.80	23.50	47	—11	23.5	34.5	12	14	11	16	11	11
Fort Wilkins	23.29	25.03	28.74	24.54	25.40	52	— 2	26.6	27.4	23	93	12	31	11	29
Fort Atkinson	25.54	30.00	35.96	28.29	29.70	53	12	23.3	17.7	28	67	9	14	10	15
Fort Snelling	24.32	26.58	35.64	28.70	28.81	59	12	30.2	16.8	7	23	5	5	7	11
Fort Des Moines	25.40	30.30	42.30	31.00	32.25	62	10	29.7	22.3	22	57	3	4	19	38
Fort Leavenworth	30.54	40.70	45.80	35.83	38.22	64	17	25.8	21.2	25	61	15	22	20	32

MONTH OF JANUARY, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	2	6	21	5	11	28	92	30	95	3.40	3.60	4.20	4.50	3.92	12	19	5	5	2.49	
4	13	4	16	5	14	28	74	35	94	3.35	4.16	4.51	4.32	4.08	14	17	5	5	3.04	
7	11	4	8	10	27	39	144	23	110	5.87	5.84	4.25	5.12	5.27	14	17	5	4	5.15	
11	12	8	19	12	16	26	29	43	74	3.71	4.61	4.22	4.77	4.32	15	16	5	5	3.92	
13	20	0	0	15	19	19	36	69	193	4.19	3.96	3.61	3.67	3.85	11	20	5	3	3.42	
0	0	32	80	13	31	31	74	16	60	....	....	....	....	....	..	..	4	4	2.86	
6	7	16	32	5	7	27	37	19	37	1.80	2.00	2.60	3.40	2.45	6	25	3	3	1.13	
22	60	2	6	18	61	3	12	39	115	1.96	1.87	1.79	2.80	2.08	6	25	3	7	2.61	
13	13	10	16	28	35	2	2	21	42	2.20	2.70	2.60	1.90	2.35	9	22	2	6	2.30	
4	8	35	91	21	71	25	81	9	38	0.64	0.96	1.74	1.84	1.30	3	28	6	6	1.90	
0	0	3	5	30	54	27	56	16	25	2.32	2.87	3.45	2.90	2.88	10	21	9	5	2.92	
4	4	0	0	4	4	53	67	37	58	4.90	5.12	4.83	5.48	5.08	17	14	8	3	7.56	Therm. protected. Rain in excess.
5	8	7	16	37	65	25	46	24	48	4.42	4.29	3.38	4.35	4.11	13	18	9	3	9.70	Rain in excess.
4	4	4	12	31	31	29	53	33	70	3.28	4.13	3.27	4.11	3.69	12	19	8	2	2.83	
6	13	8	17	20	44	21	46	35	96	5.35	4.45	5.03	5.51	5.13	17	14	10	1	3.55	
7	24	7	27	25	93	38	135	7	24	5.80	6.00	6.16	7.22	6.31	22	9	7	0	4.97	
0	0	7	12	27	39	23	36	18	23	5.93	6.22	5.61	7.16	6.23	20	11	4	1	3.59	
1	2	22	30	8	10	44	62	0	0	7.25	7.90	7.25	6.94	7.34	21	10	7	0	6.54	
6	27	12	44	14	49	28	77	14	48	3.19	4.90	5.10	5.27	4.61	14	17	6	0	4.13	
10	24	17	24	18	26	12	24	4	11	3.35	4.83	4.58	6.25	4.75	16	15	7	0	3.01	
3	9	9	34	6	14	17	42	13	25	4.45	4.97	5.45	5.26	5.03	17	14	10	0	8.28	
5	11	11	26	20	49	10	27	50	132	2.26	5.73	5.51	7.30	5.95	20	11	7	0	6.82	
3	12	3	9	5	15	23	77	25	79	5.09	5.48	5.74	4.22	5.13	20	11	11	0	6.45	
4	15	8	26	25	84	14	38	26	65	3.25	4.38	5.67	5.00	6.57	16	15	11	0	8.40	
5	8	0	0	15	33	24	41	6	13	4.09	7.54	8.16	3.87	5.91	23	8	9	0	4.80	
10	25	2	6	0	0	15	32	33	81	3.51	4.54	3.80	5.25	4.03	21	10	6	0	3.96	
10	20	23	40	7	17	14	30	7	20	5.35	5.67	6.00	7.13	6.06	18	13	7	0	....	
9	17	7	17	4	7	16	37	17	39	5.00	5.80	6.00	6.90	5.92	20	11	6	0	3.20	
4	7	26	52	17	42	21	32	7	19	7.27	7.16	8.20	8.10	7.68	26	5	6	1	4.40	
0	0	3	4	14	20	44	63	12	19	5.71	5.74	6.55	7.42	6.35	23	8	2	2	1.93	
27	28	24	28	4	6	11	12	23	24	3.94	5.74	5.84	5.81	5.33	17	14	2	0	1.02	
11	17	21	49	24	67	13	25	41	69	4.80	5.70	6.12	5.45	5.51	19	12	6	2	1.27	
34	69	0	0	5	14	0	0	69	121	1.06	1.90	4.06	6.03	3.26	10	21	6	0	3.60	
11	13	15	15	13	17	28	38	19	20	5.13	6.11	7.60	6.20	6.23	26	5	4	3	2.20	
8	13	25	66	20	38	19	47	8	22	3.00	3.50	3.50	4.80	3.94	10	21	5	9	4.06	
10	25	27	62	16	33	24	56	6	17	2.07	2.45	2.55	3.48	2.64	8	23	5	8	2.97	
10	13	4	4	17	37	19	59	23	35	3.38	3.19	3.09	4.74	3.60	9	22	2	9	1.29	
41	43	3	3	3	3	11	11	20	22	2.00	2.60	2.50	3.40	2.62	8	23	1	7	1.01	
13	30	16	61	13	44	18	64	17	70	1.96	2.93	2.89	3.64	2.86	7	24	1	11	0.83	Therm. protected.
5	6	36	67	5	10	12	17	10	17	3.38	3.41	4.38	5.80	4.24	13	18	3	5	1.00	
28	33	9	11	9	14	21	34	38	66	3.41	4.29	4.74	2.67	3.77	9	22	2	5	0.52	
0	0	19	37	4	6	28	57	18	70	4.20	3.90	4.90	5.80	4.45	18	13	2	4	0.90	
15	24	24	55	13	35	2	5	10	13	5.00	6.12	6.19	8.00	6.32	20	11	2	2	0.40	

MONTH OF FEBRUARY, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	23.40	25.40	29.10	24.90	25.70	44	2	18.3	23.7	24	93	16	53	6	20
Fort Trumbull	22.46	25.28	30.28	25.07	25.62	46	0	20.4	25.6	24	57	11	44	4	17
Fort Hamilton	21.52	26.52	33.07	27.06	27.04	50	5	23.0	22.0	24	91	31	97	3	8
Fort Columbus	24.57	27.14	31.71	26.21	27.41	46	5	18.6	22.4	14	27	26	60	4	8
West Point	20.28	23.14	26.89	24.28	23.65	48	5	24.4	18.6	8	27	1	3	1	1
Watervliet Arsenal	12.50	16.71	22.32	18.04	17.39	37	—18	19.6	35.4	..	..	..	..	..	..
Plattsburg Barracks	8.20	11.70	19.10	12.30	12.82	39	—10	26.2	22.8	16	28	22	38	11	15
Madison Barracks	11.35	15.18	21.17	16.93	16.16	38	—13	21.8	29.2	0	0	45	126	1	2
Fort Ontario	17.10	22.00	24.14	22.20	21.36	38	— 1	16.6	22.4	9	15	26	61	10	12
Fort Niagara	22.03	24.21	28.03	24.03	24.57	41	4	16.4	20.6	9	32	14	59	4	13
Alleghany Arsenal	23.51	27.11	33.25	27.10	27.74	48	— 6	20.3	33.7	13	24	8	8	11	20
Carlisle Barracks	29.82	31.32	34.89	33.89	32.48	47	16	14.5	16.5	7	17	10	15	7	11
Fort Mifflin	25.89	26.68	34.75	27.68	28.75	52	5	23.3	23.7	7	10	13	35	5	15
Fort McHenry	26.12	28.15	35.17	29.21	29.64	57	8	27.4	21.6	12	27	27	72	4	4
Fort Monroe	36.57	37.64	42.43	38.82	38.87	56	19	17.1	19.9	13	38	19	53	18	56
Fort Moultrie	46.28	53.35	56.32	50.71	51.66	66	34	14.3	17.7	1	4	26	115	25	65
Augusta Arsenal	40.70	43.46	54.21	47.71	46.52	68	32	21.5	14.5	5	5	7	9	1	1
Oglethorpe Barracks	48.75	51.78	59.46	54.86	53.71	70	36	16.3	17.7	34	55	5	16	19	32
Fort Marion	52.00	58.00	61.00	56.00	56.75	70	42	13.3	14.7	14	67	1	4	8	35
Fort Brooke	56.82	61.39	69.10	61.00	62.08	78	42	15.9	20.1	2	2	44	76	24	40
Barrancas Barracks	48.18	52.68	59.93	53.32	53.53	70	34	16.5	19.5	25	49	18	36	20	47
Mount Vernon Arsenal	42.28	51.00	61.14	48.10	50.63	75	30	24.4	20.6	3	8	21	60	2	6
Fort Wood	48.71	56.39	61.25	53.00	54.84	70	38	15.2	15.8	7	26	17	67	20	52
Fort Pike	48.53	55.39	60.39	53.75	54.51	68	36	13.5	18.5	4	10	25	49	21	47
Baton Rouge	44.78	53.32	66.07	52.25	54.10	74	32	19.9	22.1	16	39	10	18	42	77
Corpus Christi	51.42	55.67	63.28	57.64	56.98	72	31	15.0	26.0	9	26	18	39	9	28
San Antonio	47.28	48.71	61.42	50.57	51.99	78	26	26.0	26.0	4	10	10	37	17	35
Fort Towson	34.80	38.50	52.00	43.10	42.10	76	20	33.9	22.1	29	66	14	18	28	64
Fort Washita	37.42	44.46	54.46	43.25	44.90	70	22	25.1	22.9	8	21	15	35	8	19
Fort Smith	31.96	37.61	47.71	37.54	38.70	63	19	24.3	19.7	11	25	32	67	16	43
Fort Gibson	32.75	36.96	45.62	38.45	38.44	60	16	21.5	22.5	9	10	26	28	17	17
Fort Scott	24.03	32.28	35.92	27.50	29.93	52	— 3	22.0	33.0	21	44	36	89	2	2
Jefferson Barracks	24.92	28.39	37.07	29.71	30.02	56	2	26.0	28.0	0	0	20	68	0	0
St. Louis Arsenal	23.10	27.23	33.10	28.30	27.93	48	2	20.1	25.9	27	32	20	21	8	8
Detroit Barracks	17.10	25.90	31.70	23.80	24.62	48	— 7	23.4	31.6	8	8	4	9	15	48
Fort Gratiot	17.75	22.18	29.78	22.11	22.96	46	— 6	23.0	29.0	1	4	14	42	7	17
Fort Mackinac	14.78	16.16	22.32	18.71	18.00	43	—10	25.0	28.0	12	20	24	51	8	16
Fort Brady	11.20	16.60	24.50	16.20	17.12	40	—22	22.9	39.1	5	7	6	8	19	23
Fort Wilkins	16.35	18.53	23.32	18.17	19.09	42	— 9	22.9	28.1	6	21	4	11	5	11
Fort Atkinson	17.28	22.28	28.57	21.28	22.35	53	—12	30.6	32.4	34	68	3	4	7	9
Fort Snelling	12.53	17.25	28.14	20.21	19.53	52	—16	32.5	35.5	1	3	1	1	6	8
Fort Des Moines	15.00	25.20	33.60	21.80	23.90	58	— 6	24.1	29.9	51	147	3	8	12	21
Fort Leavenworth	24.07	32.53	38.00	29.46	31.01	62	— 6	31.0	37.0	33	105	18	54	14	34

MONTH OF FEBRUARY, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	29	0	0	8	24	14	58	30	103	3.50	4.00	4.30	4.70	4.12	13	15	3	8	1.98	
7	28	0	0	6	13	21	63	33	104	3.75	4.71	4.28	4.85	4.40	15	13	1	8	2.24	
0	0	1	2	12	38	26	91	15	62	5.46	5.46	5.42	7.36	5.91	16	12	3	3	5.55	
2	4	0	0	6	11	21	36	39	78	4.10	5.00	3.89	4.57	4.38	14	14	3	5	3.01	
5	7	10	11	12	23	6	11	69	151	4.92	4.96	4.17	4.71	4.69	15	13	3	4	2.78	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	0	6	2.20	
3	3	9	20	6	8	33	43	10	15	3.80	3.60	3.20	4.90	3.87	10	18	0	5	0.74	
12	35	1	4	21	83	6	22	24	77	2.46	2.50	1.75	2.42	2.28	6	22	1	15	2.24	
12	14	3	4	10	12	4	9	33	53	1.90	2.40	1.60	1.70	1.90	6	22	0	10	2.93	
8	20	27	83	26	106	15	59	5	15	1.25	2.16	2.32	1.42	1.79	5	23	1	9	1.15	Therm. protected.
13	17	6	7	5	19	44	95	12	22	2.28	3.60	3.67	3.07	3.15	8	20	2	6	2.73	
12	17	2	4	2	4	62	121	6	11	5.25	5.28	4.96	5.17	5.17	15	13	0	9	7.09	Therm. protected.
2	3	4	5	17	33	23	46	28	69	3.68	4.10	4.03	4.25	4.04	13	15	0	9	8.30	
8	8	4	4	7	17	21	44	29	60	3.15	3.26	3.25	4.80	3.43	12	16	2	9	1.82	
11	19	3	12	10	21	23	57	15	48	3.57	3.85	4.21	5.42	4.26	13	15	7	2	2.97	
2	9	4	13	13	43	24	89	7	27	3.85	4.17	4.46	5.33	4.45	14	14	7	0	3.51	
2	2	2	5	16	20	13	25	18	25	3.74	4.71	4.85	6.32	4.90	14	14	6	0	4.25	
1	6	13	18	1	1	36	69	3	3	4.28	4.46	4.28	6.70	4.93	14	14	10	0	4.70	
8	26	8	16	9	28	24	69	17	58	2.85	3.50	3.25	3.43	3.26	9	19	9	0	4.32	
1	1	14	29	4	8	13	29	10	26	2.42	3.53	3.39	5.35	3.67	12	16	10	0	4.97	
9	25	8	21	4	15	7	26	13	30	3.82	4.43	4.71	5.43	4.60	13	15	7	0	10.46	
14	32	7	22	9	28	5	14	51	147	4.32	4.70	5.60	6.53	5.28	15	13	6	0	5.31	
10	30	6	20	16	32	7	20	21	66	3.89	3.92	4.96	1.64	3.60	11	17	12	0	3.94	
3	4	4	10	14	37	15	40	21	47	2.35	3.07	3.82	3.71	3.24	10	18	7	0	4.19	
5	31	1	2	12	36	15	34	1	3	4.04	6.39	6.82	3.71	5.24	17	11	12	0	5.70	
29	82	8	15	19	33	1	1	18	49	3.21	3.00	4.28	4.92	3.85	10	18	7	0	2.37	
11	21	20	33	18	36	21	44	0	0	3.78	4.25	4.67	5.39	4.52	11	17	7	0	....	
6	15	2	7	4	13	12	24	15	52	3.70	4.00	4.60	4.30	4.15	12	16	6	2	2.75	
31	72	15	34	13	31	7	10	15	38	3.57	4.17	5.30	3.75	4.19	12	16	3	2	2.73	
0	0	4	6	5	8	20	46	24	50	2.46	2.75	2.95	4.32	3.12	9	19	6	1	2.27	
34	39	12	12	1	1	7	9	6	7	2.21	2.72	3.00	3.50	2.60	5	23	2	2	1.54	
10	18	9	17	12	21	6	13	16	32	4.10	3.85	3.71	4.28	3.98	9	19	2	6	0.92	
36	79	0	0	15	40	4	13	37	102	1.42	2.17	2.82	4.82	2.80	7	21	3	3	1.02	
4	4	8	8	7	10	24	25	12	15	5.50	5.26	6.21	6.00	5.61	19	9	1	5	2.19	
2	6	23	53	26	73	13	40	15	34	3.10	2.40	2.80	6.90	3.55	10	18	1	6	2.13	
22	55	15	37	29	80	3	7	7	22	3.18	2.00	2.82	3.64	2.91	7	21	1	10	1.61	
17	34	7	13	12	27	10	34	22	51	2.78	2.85	3.25	4.17	3.26	8	20	0	9	0.26	
35	40	5	8	1	3	14	20	21	30	2.00	1.50	2.50	3.70	2.42	3	25	1	11	0.94	
11	13	13	33	14	30	28	71	23	72	1.46	1.50	2.50	2.60	2.02	5	23	0	17	1.72	
2	2	27	59	4	12	8	20	22	65	6.00	6.10	5.46	6.46	6.01	18	10	0	4	0.03	
19	32	6	8	13	16	14	22	52	114	4.85	5.00	5.07	3.14	4.51	16	12	0	4	0.03	
1	1	8	14	5	15	20	52	6	21	4.00	4.80	4.90	6.40	5.02	16	12	0	2	0.02	
13	32	13	35	9	15	4	10	8	15	4.35	5.00	4.85	5.64	4.96	16	12	0	2	0.20	

MONTH OF MARCH, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	32.90	36.00	40.90	35.60	36.35	50	15	13.6	21.4	19	65	31	89	2	2
Fort Trumbull	33.48	39.38	44.32	38.06	38.81	63	16	24.2	22.8	31	66	11	41	1	3
Fort Hamilton	35.25	38.35	47.12	39.41	40.03	70	16	30.0	24.0	12	48	29	90	9	15
Fort Columbus	34.35	38.87	45.74	38.29	39.31	62	15	22.7	24.3	3	4	20	31	1	2
West Point	32.68	36.16	43.74	36.74	37.33	57	8	19.7	29.3	15	31	0	0	0	0
Watervliet Arsenal	25.06	29.97	36.00	28.39	29.85	56	—13	26.1	42.9	..	..	..	..	..	..
Plattsburg Barracks	25.70	30.00	37.90	30.60	31.05	52	—14	20.9	45.1	21	30	13	15	4	6
Madison Barracks	26.41	30.90	37.38	31.80	31.62	53	— 9	21.4	40.6	0	0	20	45	3	6
Fort Ontario	28.30	32.90	38.40	33.10	31.17	57	11	25.8	20.2	..	..	..	..	..	..
Fort Niagara	31.03	36.28	38.96	34.54	35.20	47	14	11.8	21.2	4	10	10	37	21	51
Alleghany Arsenal	32.93	39.64	48.61	39.19	40.09	66	10	25.9	30.1	10	10	12	31	21	18
Carlisle Barracks	35.27	39.75	44.57	40.00	39.90	56	20	16.1	19.9	..	..	..	..	..	..
Fort Mifflin	35.25	42.38	49.64	39.71	41.75	64	16	22.2	25.8	11	17	15	38	6	6
Fort McHenry	35.40	40.00	50.20	42.50	42.02	73	16	31.0	26.0	7	8	27	65	6	8
Fort Monroe	44.61	49.64	53.00	48.38	48.91	70	27	21.1	21.9	9	20	26	90	14	28
Fort Moultrie	53.70	61.00	63.81	56.00	58.63	76	33	17.4	25.6	2	6	15	50	19	55
Augusta Arsenal	51.45	55.32	65.74	58.06	57.64	79	36	21.4	21.6	7	13	22	32	0	0
Oglethorpe Barracks	56.00	59.74	67.35	61.87	61.24	78	40	16.8	21.2	18	30	9	22	19	27
Fort Marion	60.00	64.48	68.00	64.00	64.12	79	45	14.9	19.1	2	6	3	7	8	19
Fort Brooke	59.64	66.74	75.41	64.54	66.58	85	47	18.4	19.6	8	14	30	58	19	29
Barrancas Barracks	56.77	61.93	67.77	61.60	62.02	72	38	10.0	24.0	21	42	13	24	34	78
Mount Vernon Arsenal	57.22	61.40	70.30	57.35	61.57	78	34	16.4	27.6	2	7	12	32	5	16
Fort Wood	57.12	64.70	69.74	62.06	64.40	76	43	11.6	21.4	14	19	27	54	21	38
Fort Pike	57.32	64.00	70.96	63.03	63.83	78	40	14.2	23.8	8	15	12	32	34	69
New Orleans	58.13	61.48	66.58	59.80	61.50	73	50	11.5	11.5	4	6	58	83	12	15
Baton Rouge	54.35	61.64	70.55	62.67	62.30	81	41	18.7	21.3	48	82	10	15	39	54
Corpus Christi	57.32	62.36	70.00	63.18	63.21	80	38	16.8	25.2	4	6	5	22	12	40
San Antonio	50.74	57.26	69.16	57.00	58.54	78	32	19.5	26.5	19	54	0	0	17	29
Fort Towson	45.20	51.70	64.70	53.80	53.85	80	26	26.1	27.9	29	80	14	26	34	64
Fort Washita	46.93	53.23	67.51	56.09	55.94	89	30	33.1	25.9	7	16	14	42	30	64
Fort Smith	42.68	52.29	65.26	49.61	52.46	78	24	25.5	28.5	1	1	14	33	36	66
Fort Gibson	45.60	50.84	61.90	52.12	52.61	79	28	26.4	24.6	1	2	28	34	7	9
Fort Scott	37.58	46.58	53.87	46.16	46.05	72	21	25.9	25.1	17	20	15	21	9	15
Jefferson Barracks	39.51	45.67	54.83	47.41	46.85	71	19	24.1	27.9	0	0	16	30	4	11
St. Louis Arsenal	36.90	43.28	55.67	47.00	45.71	76	18	30.3	27.7	8	..	3	..	24	..
Detroit Barracks	30.60	36.00	44.00	36.80	36.85	62	2	25.1	34.9	14	24	12	29	21	43
Fort Gratiot	29.16	34.77	41.55	33.06	34.63	57	— 1	22.4	35.6	4	11	32	90	7	15
Fort Mackinac	27.19	29.74	33.39	30.26	30.14	43	9	12.9	21.1	13	26	21	30	24	68
Fort Brady	25.60	32.30	39.00	29.90	31.70	46	— 3	14.3	34.7	3	5	2	2	21	30
Fort Wilkins	27.64	32.03	36.38	30.29	31.58	47	10	15.4	21.6	19	47	5	11	9	19
Fort Atkinson	30.29	39.00	46.83	35.90	38.00	66	19	28.0	19.0	16	35	5	13	7	11
Fort Snelling	31.58	36.90	46.83	38.35	38.41	64	20	25.6	18.4	11	26	1	3	6	6
Fort Leavenworth	37.80	49.61	55.09	44.09	46.65	78	22	31.3	24.7	20	43	3	11	10	22

MONTH OF MARCH, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair	Cloudy	Rain.	Snow.		
2	4	8	28	29	76	11	31	9	26	4.00	4.20	4.80	5.00	4.50	17	14	6	2	2.88	
4	14	13	30	14	29	16	44	28	87	4.96	5.03	5.32	5.70	5.25	19	12	7	2	3.35	
11	27	10	19	13	47	12	43	28	132	5.67	6.29	5.48	7.06	6.12	20	11	4	0	2.82	
12	20	11	19	9	13	20	26	48	88	4.61	6.00	5.84	5.45	5.47	17	14	7	2	3.82	
13	24	21	35	6	12	8	10	61	137	5.06	5.67	5.58	6.41	5.68	21	10	7	1	3.90	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	5	2	2.85	
1	1	25	33	9	12	30	56	14	48	3.10	3.60	4.50	4.10	3.82	11	20	7	1	1.36	
24	53	1	2	52	165	7	19	13	35	2.93	3.29	4.06	4.51	3.70	13	18	6	4	2.28	
..	..	..	..	..	..	..	..	..	..	4.50	4.60	4.50	4.30	4.48	12	12	2	3	1.55	First 24 days.
3	7	23	56	20	72	12	36	10	44	2.41	3.51	3.77	3.51	3.40	11	20	7	3	1.20	Therm. protected.
12	13	7	7	15	20	21	65	26	58	3.93	4.12	4.00	5.83	4.47	14	17	10	0	2.02	
..	..	..	..	..	..	..	..	..	..	5.64	6.35	5.58	6.35	5.98	19	12	6	1	7.68	Therm. protected. Rain in excess.
4	11	18	44	15	29	14	27	32	74	4.13	4.74	4.71	4.74	4.61	13	18	9	1	8.10	Rain in excess.
10	18	6	28	21	37	17	32	30	59	4.19	4.22	4.70	5.12	4.55	13	18	6	2	3.54	
18	37	2	6	16	33	20	41	19	60	4.87	4.77	4.35	5.67	4.91	15	16	9	0	3.33	
9	22	17	43	26	60	19	42	8	20	5.00	4.90	4.93	6.32	5.29	17	14	6	0	5.50	
25	32	8	9	11	22	2	4	14	18	5.54	5.74	4.70	6.45	5.61	18	13	8	0	8.60	
2	5	23	32	5	11	44	58	2	7	7.26	7.20	7.36	6.29	7.03	21	10	7	0	5.06	
18	34	14	25	19	35	9	18	21	48	2.40	3.50	3.80	5.60	3.82	12	19	4	0	1.67	
7	13	18	31	20	28	21	44	4	11	5.46	5.25	5.48	5.45	5.41	16	15	8	0	7.73	
12	26	17	33	2	7	14	45	7	18	4.09	4.42	5.06	5.06	4.61	18	13	9	0	5.80	
32	76	13	40	11	28	7	29	42	147	4.67	4.93	5.00	6.30	5.22	17	14	8	0	5.63	
19	30	8	12	8	16	9	20	17	30	3.13	3.80	3.83	1.83	3.15	9	22	11	0	10.61	
11	27	3	7	19	63	10	31	17	56	1.64	3.00	2.87	4.03	2.88	9	22	10	0	14.25	
13	17	2	3	11	16	9	14	9	13	0.67	1.58	2.06	2.80	1.80	5	26	8	0	7.88	
2	4	9	10	4	8	9	17	3	6	3.96	3.19	2.80	3.12	3.26	11	20	10	0	12.30	
34	135	8	6	17	24	2	4	10	33	2.27	3.09	4.09	4.90	3.59	6	16	4	0	1.25	First 22 days.
12	29	32	54	18	36	18	36	2	7	3.83	4.16	5.77	5.19	4.74	16	15	9	0	....	
10	16	10	19	3	10	6	14	13	33	4.30	5.00	5.30	6.00	5.15	16	15	7	0	2.00	
13	36	14	23	6	13	33	75	7	27	4.67	5.60	5.74	6.32	5.58	20	11	9	0	2.50	
19	33	11	17	5	13	29	87	9	27	4.87	5.32	4.80	6.03	5.25	16	15	7	0	1.52	
35	39	25	26	9	10	7	9	12	13	4.30	5.26	4.44	6.49	5.12	14	17	7	0	1.79	
15	36	5	10	18	38	11	16	34	74	5.48	5.29	5.16	5.09	5.25	16	15	8	1	1.61	
26	57	12	26	16	43	14	41	36	90	2.16	4.48	4.93	5.77	4.33	16	15	9	0	1.73	
16	..	12	..	13	16	30	40	18	28	6.22	7.20	7.23	6.19	6.71	24	7	7	0	3.06	
6	8	11	20	20	64	16	37	13	31	3.80	3.30	3.80	6.70	4.40	13	18	6	4	3.15	
29	76	15	38	21	68	9	17	7	20	2.84	3.13	3.51	4.42	3.50	11	20	7	8	2.17	
10	17	5	7	9	16	24	74	18	37	3.25	3.22	3.90	4.12	3.62	13	18	4	6	1.77	
34	49	9	12	2	3	22	45	21	50	2.60	3.00	3.30	3.20	3.03	10	21	7	7	2.51	
20	47	23	59	4	8	24	63	13	27	2.77	2.96	3.54	3.58	3.21	10	21	5	13	3.84	
11	19	34	70	11	27	15	38	21	64	4.80	4.80	5.25	6.48	5.33	17	14	6	4	3.12	
30	55	9	19	8	24	23	42	36	82	3.61	4.35	3.77	2.12	3.46	11	20	3	3	1.71	
11	21	36	89	11	26	9	16	24	54	6.32	5.74	5.70	6.25	6.00	21	10	4	0	1.10	

MONTH OF APRIL, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	40.70	47.50	51.24	43.90	45.83	64	31	18.2	24.8	10	36	19	54	6	15
Fort Trumbull	41.33	49.46	55.50	46.13	48.10	75	32	26.9	16.1	34	70	7	23	3	8
Fort Hamilton	44.23	48.63	56.20	48.00	49.26	81	33	31.7	13.3	8	26	26	81	6	15
Fort Columbus	44.03	50.50	58.63	48.16	50.33	73	34	22.7	16.3	5	5	24	33	1	1
West Point	42.59	48.03	58.93	50.41	50.00	76	31	26.0	19.0	6	11	5	6	0	0
Watervliet Arsenal	39.93	47.90	53.33	47.13	47.07	78	27	30.1	20.9	..	..	..	..	..	..
Plattsburg Barracks	37.00	43.10	52.80	43.20	44.02	71	23	27.0	21.0	17	35	18	37	7	17
Madison Barracks	39.26	46.90	50.86	44.73	45.44	62	34	16.6	11.4	1	3	34	74	0	0
Fort Ontario	40.60	45.10	50.30	44.10	45.02	74	24	29.0	21.0	0	0	7	8	18	19
Fort Niagara	40.63	45.00	48.53	43.50	44.41	78	30	33.6	14.4	16	44	33	112	2	3
Alleghany Arsenal	43.60	53.46	66.20	53.86	54.28	84	24	29.7	20.3	15	18	10	14	20	23
Carlisle Barracks	49.19	50.67	55.04	50.78	51.42	68	37	16.6	14.4	..	..	..	..	..	..
Fort Mifflin	44.36	53.66	62.10	49.70	52.46	74	32	21.5	20.5	6	9	10	17	20	43
Fort McHenry	45.13	52.25	62.26	52.28	52.98	82	33	29.0	20.0	2	5	31	54	5	6
Fort Monroe	53.53	57.83	61.33	56.46	57.29	82	42	24.7	15.3	4	10	14	37	35	114
Fort Moultrie	60.56	68.56	71.66	63.03	65.95	89	46	23.0	20.0	7	24	35	146	13	49
Augusta Arsenal	61.43	65.26	70.23	65.30	65.56	82	48	16.4	17.6	1	2	38	41	4	5
Oglethorpe Barracks	56.46	63.50	72.30	64.03	64.07	89	43	25.0	21.0	18	26	24	49	37	59
Fort Marion	64.00	70.20	76.40	65.60	69.05	84	54	15.0	15.0	23	94	6	26	26	102
Fort Brooke	66.80	73.00	78.66	70.16	72.15	89	60	16.9	12.1	5	15	44	116	20	36
Barrancas Barracks	63.70	67.33	70.23	66.33	66.90	78	49	11.1	17.9	14	28	18	54	33	102
Mount Vernon Arsenal	58.36	66.43	71.33	60.60	64.18	81	42	16.8	22.2	0	0	24	68	17	59
Fort Wood	65.30	70.16	73.36	68.33	69.29	85	51	15.7	18.3	15	48	28	36	27	53
Fort Pike	63.26	68.04	71.07	65.76	67.03	84	48	17.0	19.0	3	9	10	26	35	126
New Orleans	63.20	66.80	74.20	64.43	67.16	83	57	15.8	10.2	45	48	17	37	21	46
Baton Rouge	62.66	68.56	74.10	66.93	68.07	85	47	17.0	21.0	22	45	19	35	36	111
Corpus Christi	64.00	67.00	73.00	70.00	68.50	91	48	22.5	20.5	4	13	17	61	32	54
San Antonio	59.79	71.16	77.00	63.36	67.83	87	43	19.2	24.8	9	23	14	40	17	36
Fort Towson	53.20	60.40	71.10	60.40	61.27	84	32	22.7	29.3	19	46	10	13	41	71
Fort Washita	54.66	61.50	73.24	64.63	63.46	90	34	26.5	29.5	7	18	0	0	20	33
Fort Smith	52.60	64.70	74.10	58.83	62.56	88	36	25.4	26.6	1	3	7	11	41	60
Fort Gibson	55.20	61.53	70.09	60.67	61.87	86	34	24.1	27.9	3	3	13	14	5	5
Fort Scott	48.70	58.90	66.63	55.13	57.34	85	25	27.7	32.3	5	7	17	29	10	14
Jefferson Barracks	52.06	59.06	66.86	59.43	59.35	84	36	24.7	23.3	0	0	28	55	10	23
St. Louis Arsenal	48.19	51.12	67.10	57.22	54.91	89	28	34.1	26.9	6	9	18	26	26	29
Detroit Barracks	41.80	49.60	60.30	48.40	50.03	76	28	26.0	22.0	14	34	11	27	21	53
Fort Gratiot	38.20	47.23	53.03	43.00	45.36	79	20	33.6	25.4	1	4	42	123	5	13
Fort Mackinac	35.76	38.31	40.90	38.30	38.32	61	23	22.7	15.3	7	14	20	55	35	119
Fort Brady	35.20	43.10	50.20	40.20	42.17	71	18	28.8	24.2	4	9	0	0	18	26
Fort Wilkins	34.26	40.06	45.96	36.76	39.26	78	12	38.7	27.3	8	24	10	26	14	39
Fort Atkinson	38.86	46.50	52.36	44.60	45.58	81	8	35.4	37.6	18	37	8	26	13	41
Fort Snelling	40.00	45.23	53.96	46.26	46.37	85	18	38.6	28.4	3	7	21	43	16	26
Fort Leavenworth	48.66	58.00	62.43	54.60	54.92	82	34	27.1	20.9	11	19	13	30	36	81

MONTH OF APRIL, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	8	6	14	40	123	16	46	7	27	4.40	5.30	5.40	6.50	5.40	17	13	6	0	1.95	
1	3	14	28	20	55	26	72	12	31	5.66	5.96	5.86	5.93	5.85	19	11	7	0	2.12	
12	30	27	66	21	72	6	24	14	61	5.56	5.90	5.40	6.70	5.89	19	11	2	0	2.40	
16	24	6	12	21	39	7	8	40	66	4.96	5.80	5.66	5.36	5.68	18	12	5	0	4.01	
24	39	27	48	13	18	6	14	39	88	5.63	5.53	6.20	5.86	5.80	18	12	10	0	3.04	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	5	0	0 86	Defective.
12	17	17	56	5	5	21	50	10	30	4.90	4.80	4.60	5.80	5.02	14	16	4	3	0.62	
24	75	0	0	34	105	4	13	18	55	4.40	4.46	3.36	3.50	3.93	10	20	10	3	1.96	Temp. observed for
16	19	29	45	11	11	23	32	9	16	4.90	5.00	5.50	4.60	5.00	16	14	3	4	1.29	[first 22 days.
2	7	16	45	19	79	8	28	9	24	3.06	3.13	3.90	3.66	3.44	10	20	8	1	1.08	
16	28	32	90	9	17	11	29	7	31	5.40	5.60	5.90	4.96	5.46	13	17	12	0	3.76	
..	..	..	..	..	..	..	..	..	..	6.90	7.23	6.66	6.30	6.77	17	13	7	0	5.98?	Inaccurate.
8	13	15	37	28	53	8	17	15	23	4.40	4.50	5.30	6.30	5.12	16	14	5	0	4.10?	
38	40	13	26	17	51	4	22	10	32	4.20	5.10	5.10	6.16	5.14	17	13	6	0	2.38	
19	45	11	26	27	65	7	18	3	8	4.73	5.23	5.66	5.73	5.33	16	14	7	0	3.28	
22	71	15	40	11	40	3	10	7	25	3.50	3.60	4.13	5.46	4.17	13	17	7	0	3.35	
43	51	8	8	5	5	1	1	3	3	3.76	3.60	3.40	4.60	3.84	11	19	10	0	2.89	
3	5	26	35	1	3	12	18	0	0	4.23	4.23	3.66	4.13	4.06	14	16	7	0	3.72	
20	80	10	32	7	24	4	18	8	26	1.20	2.80	3.80	4.40	3.05	10	20	7	0	1.70	
7	12	28	43	13	18	6	7	0	0	3.23	2.90	2.93	5.30	3.59	9	21	10	0	2.93	
21	75	16	41	3	8	13	47	1	3	3.27	3.40	4.27	4.53	3.87	10	20	12	0	6.34	
34	124	6	18	24	79	2	6	13	45	2.70	3.16	3.20	4.03	3.27	7	23	11	0	11.51	
5	22	16	27	17	24	5	23	2	10	2.20	3.16	3.29	2.10	2.19	8	22	16	0	18.17	
5	16	12	32	23	75	6	15	15	35	1.53	1.76	2.06	2.96	2.08	6	24	14	0	13.75	
13	24	15	36	2	4	0	0	0	0	1.40	2.27	2.80	2.00	2.12	7	23	11	0	10.70	
15	49	13	27	10	26	3	11	2	4	6.96	5.66	4.33	4.53	5.37	20	10	16	0	17.20	
35	64	16	27	3	9	7	20	1	6	2.00	2.16	3.07	4.20	2.86	8	22	7	0	3.71	
7	14	44	77	4	7	22	29	0	0	2.76	3.23	4.87	4.13	3.75	9	21	8	0	....	
19	31	10	21	3	8	9	21	5	11	3.50	3.60	5.00	6.30	4.60	13	17	9	0	5.99	
14	32	46	121	9	20	15	42	9	25	3.70	5.03	5.93	6.93	5.39	18	12	9	0	3.24	
26	40	6	8	22	42	13	22	4	8	3.33	4.03	4.50	5.23	4.27	13	17	10	0	5.48	
47	51	32	37	14	14	3	3	3	3	3.86	4.43	4.86	4.80	4.48	14	16	8	0	3.04	
14	27	19	48	24	69	10	32	21	53	3.56	3.20	3.26	5.26	3.82	10	20	10	0	2.64	
43	131	6	13	7	19	0	0	26	60	2.30	3.56	4.50	3.56	3.48	12	18	10	0	4.83	
23	23	17	17	11	14	12	26	7	11	6.22	7.21	7.28	7.26	6.99	16	14	12	0	7.59	Weather observa-
33	68	12	35	12	36	6	17	8	26	3.70	3.60	4.00	5.60	4.23	11	19	11	2	1.68	[tions inaccurate.
34	95	19	55	9	31	6	21	3	8	3.23	4.20	3.47	4.50	3.85	10	20	11	2	2.19	
14	37	10	33	11	30	14	64	9	17	3.76	3.96	3.74	4.16	3.40	11	19	8	4	2.01	
50	106	4	8	1	5	17	50	15	44	4.00	4.30	3.90	4.20	4.10	10	20	8	5	2.65	
29	83	8	24	15	53	27	90	7	20	4.40	4.70	4.30	6.16	4.89	16	14	7	3	2.95	
12	23	30	57	4	5	14	29	12	42	4.36	4.73	4.53	4.70	4.58	18	12	10	3	6.53	
31	78	4	6	11	21	18	51	16	40	3.73	4.20	4.50	2.13	3.64	9	21	9	3	2.90	
16	44	27	68	8	18	2	10	7	28	4.93	5.46	5.40	5.86	5.38	16	14	6	0	3.90	

MONTH OF MAY, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	50.80	56.40	58.60	52.30	54.52	67	43	12.5	11.5	10	37	20	53	9	15
Fort Trumbull	51.06	56.80	60.03	54.58	55.62	67	49	11.4	15.6	17	30	12	30	12	29
Fort Hamilton	55.09	58.83	64.70	58.45	59.27	84	42	24.7	17.3	7	18	26	70	18	44
Fort Columbus	54.61	59.77	69.09	58.16	60.41	89	42	28.6	18.4	4	5	41	60	7	11
West Point	54.62	60.45	66.51	59.41	60.25	83	43	22.7	17.3	10	16	4	8	2	2
Watervliet Arsenal	54.74	60.48	68.19	57.19	60.15	83	38	22.9	22.1	..	..	..	..	..	..
Plattsburg Barracks	48.20	54.60	62.70	53.40	54.72	82	31	27.3	23.7	17	53	9	12	7	7
Madison Barracks	50.77	58.38	62.77	55.41	56.83	78	33	21.2	23.8	2	3	25	29	1	3
Fort Ontario	52.10	57.50	60.30	56.20	56.52	78	34	21.5	22.5	..	..	..	..	..	..
Fort Niagara	51.74	55.35	59.16	54.03	55.07	77	36	21.9	19.1	1	2	22	70	0	0
Alleghany Arsenal	56.41	66.96	75.33	63.00	65.42	90	38	24.6	27.4	4	11	20	26	14	15
Fort McHenry	58.60	64.17	73.22	63.27	64.81	88	40	23.2	24.8	4	5	43	61	6	3
Fort Monroe	65.61	70.64	74.41	69.32	70.00	86	54	16.0	16.0	2	4	3	10	20	44
Fort Moultrie	69.16	76.29	77.54	74.45	74.36	86	64	11.6	10.4	1	3	10	40	17	61
Charleston Arsenal	70.66	73.48	76.69	72.30	73.28	86	64	12.7	9.3	1	4	7	20	16	31
Oglethorpe Barracks	69.80	76.51	81.19	74.26	75.44	93	64	17.5	11.5	13	16	3	3	34	44
Fort Marion	69.90	77.60	84.90	67.90	75.07	88	62	12.9	13.1	5	19	4	16	5	20
Fort Brooke	68.29	78.45	84.41	74.74	76.47	90	61	13.5	15.5	5	11	22	49	20	39
Mount Vernon Arsenal	63.00	75.60	81.82	70.48	72.72	90	54	17.3	18.7	6	17	11	24	7	21
New Orleans	71.70	74.88	81.77	73.77	75.28	85	63	9.7	12.3	0	0	17	27	16	16
Baton Rouge	67.20	76.67	84.19	74.35	75.60	92	58	16.4	17.6	28	34	18	36	41	108
Corpus Christi	73.87	77.32	81.90	76.06	77.29	87	67	9.7	10.3	5	5	3	15	20	42
San Antonio	66.29	74.48	85.67	71.25	74.42	92	50	17.6	24.4	2	5	0	0	20	37
Fort Washita	63.16	73.29	81.74	72.12	72.58	90	54	17.4	17.6	4	5	4	11	15	37
Fort Smith	61.09	75.06	81.58	67.22	71.24	90	47	18.8	24.2	6	11	17	34	37	63
Fort Gibson	63.27	70.54	77.37	68.84	70.00	86	50	16.0	20.0	16	17	7	7	0	0
Fort Scott	58.80	71.51	78.90	66.67	68.97	88	44	19.0	25.0	17	30	4	8	9	17
Jefferson Barracks	61.19	71.77	77.00	68.64	69.65	87	50	17.4	19.6	15	40	0	0	38	66
St. Louis Arsenal	59.16	69.27	79.18	68.26	68.97	94	48	25.0	21.0	8	23	13	22	10	10
Detroit Barracks	52.00	65.40	76.20	58.10	62.92	94	40	31.1	22.9	9	..	20	..	9	..
Fort Gratiot	48.77	58.55	65.41	53.42	56.54	86	34	29.5	22.5	5	20	44	134	26	78
Fort Mackinac	44.83	50.51	56.25	50.03	50.41	72	32	21.6	18.4	16	43	23	41	30	71
Fort Brady	43.70	55.00	63.70	49.40	52.95	81	34	28.1	17.9	3	5	5	10	12	19
Fort Wilkins	45.87	53.29	60.19	48.77	52.03	74	33	23.0	19.0	1	4	14	31	10	23
Fort Atkinson	54.90	67.16	73.70	61.09	64.21	84	46	19.8	18.2	14	26	20	31	11	21
Fort Snelling	55.16	62.83	72.29	64.35	63.65	81	43	17.4	20.6	5	8	54	64	27	32
Fort Leavenworth	58.76	67.33	75.41	65.71	66.80	84	48	17.2	18.8	19	29	6	12	14	30

MONTH OF MAY, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	27	18	47	20	59	10	30	5	18	2.70	2.40	2.50	3.20	2.93	7	24	15	0	2.75	
16	43	21	44	13	30	9	24	13	37	2.87	2.61	3.19	3.03	2.92	8	23	14	0	4.69	
14	26	25	53	17	44	10	40	7	32	3.77	3.25	3.25	3.58	3.46	11	20	13	0	9.84	
34	61	1	2	14	17	5	10	18	38	2.87	4.58	3.74	3.61	3.70	10	21	13	0	9.70	
64	102	11	24	5	9	9	15	19	45	3.29	3.48	3.00	3.86	3.40	9	22	11	0	6.62	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	11	0	3.29	
17	25	34	83	4	6	20	29	8	32	3.30	3.40	3.25	4.80	3.69	11	20	12	1	2.91	
20	60	2	4	46	118	4	12	19	62	2.51	2.25	3.77	3.70	3.06	7	24	13	1	3.49	
..	..	..	..	..	..	..	..	..	..	5.00	5.20	5.90	6.40	5.62	16	15	6	0	1.82	Observations for last 15 days.
0	0	12	41	7	23	27	77	20	67	3.25	3.61	4.29	3.51	3.67	11	20	9	0	2.08	
13	14	9	15	5	11	31	45	28	56	2.67	4.48	4.36	5.00	4.12	14	17	11	0	4.62	Temp. in error.
29	32	7	16	13	36	14	21	8	20	3.30	2.29	3.50	4.20	3.32	8	23	12	0	5.77	
31	68	13	27	31	60	9	22	15	40	5.16	4.54	3.54	6.55	4.95	19	12	12	0	4.36	
12	40	19	75	38	133	15	50	5	19	7.32	7.00	6.70	7.61	7.15	22	9	5	0	1.90	
30	71	6	9	41	98	8	24	14	33	7.15	6.30	5.36	6.93	6.44	23	8	9	0	2.53	
4	8	14	24	2	3	49	64	3	3	8.32	7.00	6.32	7.90	7.39	25	6	4	0	1.36	
41	158	11	35	13	48	6	22	1	4	5.20	5.60	5.60	5.90	5.82	21	10	3	0	1.77	
3	3	12	21	35	61	26	38	1	1	7.29	8.00	6.77	8.45	7.62	27	4	3	0	4.44	
27	82	13	43	17	44	1	2	42	121	6.67	6.00	5.63	6.74	6.26	22	9	7	0	5.49	
37	41	15	17	18	25	0	0	1	3	3.07	3.07	3.66	2.40	3.05	10	17	8	0	5.38	First 27 days.
9	21	11	16	3	9	10	20	4	11	4.58	3.45	3.51	2.30	3.46	12	19	9	0	13.20	
30	86	56	138	0	0	2	2	3	4	4.58	4.90	4.70	5.79	5.00	14	17	7	0	3.44	
4	9	76	128	0	0	21	21	0	0	4.16	5.00	5.80	6.32	5.32	16	15	5	0	....	
16	42	60	137	4	8	15	29	6	25	6.74	5.90	8.32	8.22	7.29	26	5	6	0	4.70	
10	18	10	10	6	16	31	50	7	14	5.68	4.51	5.55	7.84	5.89	22	9	12	0	5.68	
36	36	42	46	9	8	4	4	10	11	3.80	3.90	4.80	7.34	4.96	14	17	11	0	4.60	
6	9	25	53	38	95	21	37	4	4	4.25	4.74	4.25	6.19	4.85	11	20	7	0	1.76	
16	31	18	40	11	22	9	14	17	26	4.50	4.80	4.74	6.74	5.19	15	16	9	0	3.50	
23	24	36	38	14	19	13	25	7	8	7.28	8.80	8.70	7.10	7.97	20	11	10	0	5.97	Weather observations inaccurate.
17	..	15	..	17	..	15	..	3	..	4.90	5.70	6.60	8.70	6.47	21	10	12	0	5.42	
13	24	19	55	4	13	6	22	2	7	3.16	4.35	4.48	4.97	4.24	13	18	10	0	4.55	
13	19	3	4	27	72	0	0	12	28	5.51	5.70	5.16	5.67	5.51	19	12	7	0	3.27	
29	45	7	13	5	12	14	23	45	96	5.10	5.60	6.00	6.50	5.80	18	13	6	0	2.03	
14	45	16	45	8	27	27	102	22	48	6.70	6.83	7.25	6.67	6.86	22	9	6	0	1.63	
5	13	40	67	16	32	11	25	3	7	4.87	5.90	5.45	6.45	5.67	20	11	11	0	6.33	
28	36	0	0	5	10	3	5	2	3	3.48	4.48	5.35	2.35	3.91	11	20	8	0	2.00	
24	69	34	90	12	45	4	6	11	12	7.22	6.90	6.61	6.67	6.85	23	8	7	0	3.20	

MONTH OF JUNE, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	58.60	66.30	68.90	59.70	63.37	78	52	14.6	11.4	8	34	21	53	6	9
Fort Hamilton	60.20	65.70	71.83	64.93	65.67	84	57	18.3	8.7	5	13	22	67	8	22
Fort Columbus	61.00	68.20	75.60	64.63	67.36	86	52	18.6	15.4	1	1	25	31	1	1
West Point	60.80	67.83	74.56	66.10	67.32	86	51	18.7	16.3	7	16	7	13	4	11
Watervliet Arsenal	60.63	68.53	76.30	64.53	67.50	83	49	15.5	18.5	..	..	..	..	..	..
Plattsburg Barracks	53.20	61.90	70.70	60.30	61.52	87	41	25.5	20.5	15	28	14	39	9	9
Madison Barracks	56.26	66.80	69.77	61.73	63.64	80	46	16.4	17.6	3	8	18	52	0	0
Fort Ontario	60.20	64.20	68.30	63.90	64.15	82	44	17.8	20.2	..	..	..	..	..	..
Fort Niagara	59.33	62.46	66.36	62.16	62.83	78	50	15.2	12.8	2	10	27	89	1	1
Alleghany Arsenal	57.76	70.76	81.36	65.80	68.92	92	50	23.1	18.9	11	24	16	24	12	22
Fort McHenry	62.26	67.26	75.70	67.16	68.09	89	52	20.9	16.1	1	2	48	75	3	8
Fort Monroe	70.10	74.36	78.86	72.46	73.95	89	57	15.0	17.0	9	22	10	25	23	61
Fort Moultrie	75.60	80.70	82.70	78.33	79.33	91	67	11.7	12.3	2	7	12	44	2	8
Charleston Arsenal	75.10	77.93	80.00	76.37	77.35	88	66	10.6	11.4	0	0	27	55	1	1
Oglethorpe Barracks	74.00	79.46	82.80	77.40	78.41	92	63	13.6	15.4	11	13	2	4	20	29
Fort Marion	75.10	79.67	80.50	76.00	77.82	89	69	11.2	8.8	9	42	3	13	10	37
Fort Brooke	73.23	81.36	84.16	78.50	79.31	90	67	10.7	12.3	4	7	19	46	6	13
Mount Vernon Arsenal	67.46	80.13	84.76	73.90	75.56	94	62	17.4	14.6	1	2	31	80	8	23
New Orleans	72.20	80.70	82.20	80.45	80.14	86	68	5.9	12.1	2	3	4	9	8	9
Baton Rouge	71.33	80.66	85.86	77.60	78.86	94	64	15.1	14.9	29	37	17	32	52	60
Corpus Christi	77.43	79.96	83.73	79.30	80.10	89	72	8.9	8.1	5	8	11	41	23	71
San Antonio	72.03	78.03	86.50	75.60	78.04	92	62	14.0	16.0	6	11	3	6	26	50
Fort Washita	66.13	76.70	82.53	73.80	74.79	99	54	24.2	20.8	2	5	6	19	53	112
Fort Smith	63.60	77.76	83.36	69.30	73.50	99	53	25.5	20.5	7	9	25	46	26	38
Fort Gibson	65.73	73.20	79.55	71.78	71.32	91	56	19.7	15.3	4	4	32	29	8	8
Fort Scott	60.06	71.96	77.42	67.60	69.26	91	51	21.7	18.3	3	28	29	50	18	36
Jefferson Barracks	62.36	70.60	77.90	67.43	69.32	88	53	18.7	16.3	10	17	7	13	21	42
St. Louis Arsenal	62.90	70.26	81.10	70.19	71.11	95	50	23.9	21.1	26	42	16	23	18	30
Detroit Barracks	57.07	69.40	75.30	63.30	66.27	92	47	25.7	19.3	15	..	21	..	23	..
Fort Gratiot	54.03	63.03	71.93	59.60	62.15	86	39	23.8	23.2	11	40	43	127	15	32
Fort Mackinac	52.80	59.96	65.06	57.26	58.77	76	39	17.2	19.8	20	45	14	21	22	51
Fort Brady	50.30	63.50	75.60	57.50	61.72	93	38	31.3	23.7	4	5	3	10	18	22
Fort Wilkins	52.03	58.06	65.33	54.23	57.41	80	39	22.6	18.4	6	20	4	8	4	12
Fort Snelling	58.93	66.73	75.60	66.03	66.82	87	44	20.2	22.8	1	3	26	38	30	33
Fort Leavenworth	60.00	70.50	81.13	62.66	68.57	90	52	21.4	16.6	15	24	12	19	23	62

MONTH OF JUNE, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	9	10	17	34	79	16	38	7	20	2.30	3.10	3.60	3.20	3.06	8	22	12	0	0.79	
15	29	8	18	28	72	26	109	8	22	4.86	4.16	3.83	3.96	4.20	12	18	10	0	2.14	
26	35	0	0	36	37	4	5	27	35	3.76	6.20	7.50	5.20	5.66	22	8	12	0	1.39	
38	55	17	28	11	22	8	14	28	71	4.56	4.56	4.43	4.50	4.51	15	15	11	0	2.30	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	5	0	2.96	
19	19	16	25	3	4	32	42	3	3	4.30	4.60	4.10	3.40	4.10	14	16	8	0	3.11	
12	28	1	3	61	161	5	11	11	41	3.60	4.50	4.33	4.00	4.12	10	20	10	0	1.98	
..	..	..	..	..	..	..	..	..	..	6.80	6.40	6.40	5.60	6.30	21	9	5	0	1.38	
0	0	30	92	5	15	17	47	12	50	2.66	3.10	4.63	4.30	3.90	12	18	10	0	1.62	
12	21	6	9	12	21	32	47	19	47	3.00	4.40	4.23	5.46	4.27	11	19	4	0	4.05	Temp. in error.
22	20	0	0	15	22	4	5	27	52	2.07	3.90	2.24	4.00	3.05	9	21	10	0	1.78	
19	36	8	17	17	36	14	41	20	57	3.46	3.53	4.70	4.63	4.08	12	18	10	0	4.67	
19	63	28	89	30	87	15	45	3	8	5.60	6.96	6.10	6.96	6.41	22	8	6	0	3.25	
36	64	5	12	41	88	6	11	1	1	5.23	5.57	4.87	5.20	5.22	16	14	13	0	5.24	
8	14	34	43	8	10	28	32	2	3	6.33	5.07	4.86	6.33	5.65	20	10	13	0	5.81	
32	111	20	55	0	0	7	20	3	12	3.50	5.20	3.50	3.60	3.95	12	18	12	0	6.28	
11	15	23	49	44	83	13	21	0	0	6.36	6.03	4.86	6.10	5.83	19	11	12	0	8.17	
20	44	3	8	15	39	8	26	34	86	5.00	5.16	4.30	5.50	4.99	15	15	7	0	5.57	
14	23	28	48	10	24	4	9	5	10	5.00	5.25	5.60	8.60	6.11	17	3	4	0	1.85	Last 20 days.
5	11	4	7	4	10	6	7	3	4	4.10	3.50	4.73	1.93	3.56	8	22	13	0	16.00	
30	69	34	79	9	16	2	2	2	3	4.93	5.06	4.20	5.70	4.98	16	14	12	0	6.65	
2	4	74	128	2	4	7	12	0	0	3.03	3.43	3.36	3.90	3.43	11	19	15	0	....	Amount of rain great.
10	28	26	62	9	25	12	34	2	8	5.53	7.06	7.30	7.50	6.84	21	9	12	0	10.23	
9	15	5	5	17	17	15	17	16	26	4.96	5.20	5.03	6.76	5.48	18	12	10	0	7.00	
49	49	18	18	6	7	0	0	3	5	3.86	5.73	4.46	6.43	5.32	16	14	4	0	6.92	
15	31	8	17	15	30	12	14	10	13	3.80	4.26	4.27	5.90	4.55	13	17	8	0	7.03	
10	17	11	19	7	12	26	41	28	46	4.84	4.86	5.53	4.50	5.68	17	13	6	0	2.86	
13	20	15	16	12	18	13	22	7	9	6.24	7.24	7.25	7.10	6.95	20	10	9	0	4.94	Weather observations
15	..	7	..	9	..	15	..	5	..	5.40	5.70	4.90	7.20	5.80	18	12	13	0	3.55	[inaccurate.
20	40	12	28	9	23	0	0	6	19	4.03	4.46	5.03	5.63	4.79	14	16	13	0	2.35	
9	10	11	13	9	10	23	47	12	16	6.63	3.70	6.66	6.20	5.79	21	9	4	0	0.89	
22	34	3	10	2	8	24	43	28	49	6.50	5.80	6.20	6.20	6.17	20	10	2	0	0.95	
12	38	16	55	18	50	25	80	25	64	7.03	7.13	8.36	7.60	7.53	23	7	7	0	1.12	
45	58	2	4	8	20	2	6	6	11	3.86	4.93	5.30	2.96	4.26	16	14	6	0	3.10	
11	16	25	35	3	3	0	0	11	27	7.40	7.00	7.40	7.00	7.22	20	10	6	0	4.16	Observations omitted.

MONTH OF JULY, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	65.00	74.20	75.80	67.20	70.55	88	59	17.5	11.5	10	30	18	43	2	2
Fort Hamilton	66.51	71.97	77.80	71.54	71.96	90	55	18.0	17.0	7	26	26	72	7	19
Fort Columbus	67.51	72.13	79.32	69.58	72.21	95	57	22.8	15.2	3	4	36	56	2	3
West Point	67.12	71.45	78.84	71.58	72.25	92	58	19.8	14.2	12	27	13	31	2	2
Watervliet Arsenal	64.77	72.61	80.48	69.61	71.87	96	54	24.2	17.8	..	..	..	..	..	..
Alleghany Arsenal	64.30	74.38	83.38	71.02	73.27	98	50	24.7	23.3	29	37	10	11	16	18
Fort McHenry	67.16	75.80	82.00	72.24	74.30	95	55	20.7	19.3	6	7	22	31	0	0
Fort Monroe	74.67	78.83	84.29	77.67	78.86	95	68	16.2	10.8	6	16	9	37	10	28
Fort Moultrie	77.38	82.29	83.22	79.70	80.65	88	65	7.4	15.6	0	0	21	62	9	29
Charleston Arsenal	77.00	79.40	82.50	78.13	76.76	89	65	12.2	11.8	2	4	18	38	8	14
Oglethorpe Barracks	75.13	80.22	84.77	78.74	79.71	92	64	12.3	15.7	9	12	3	5	10	16
Fort Brooke	75.45	81.41	85.03	77.61	79.88	90	73	10.1	6.9	1	2	12	19	44	56
Barrancas Barracks	76.16	82.93	83.36	78.63	80.27	91	67	10.7	13.3	13	20	3	3	7	12
Mount Vernon Arsenal	71.12	81.12	83.20	74.29	77.43	94	62	16.6	15.4	0	0	15	43	9	23
New Orleans	79.03	82.64	85.61	83.64	82.73	88	74	5.3	8.7	5	9	6	11	24	52
Baton Rouge	74.67	83.25	88.16	79.38	81.37	97	69	15.6	12.4	19	52	12	22	48	74
Corpus Christi	77.35	83.79	86.58	81.16	82.22	89	72	6.8	10.2	6	17	4	20	4	10
Fort Washita	73.22	82.61	91.06	80.16	81.76	98	64	16.3	17.7	7	8	8	23	32	67
Fort Smith	70.64	86.96	92.35	72.64	80.65	100	56	19.4	24.6	4	4	7	8	56	58
Fort Gibson	72.34	80.41	87.63	78.58	79.74	95	60	15.3	19.7	0	0	3	5	10	18
Fort Scott	67.83	81.70	87.90	76.19	78.40	95	51	16.6	27.4	6	6	15	27	8	14
Jefferson Barracks	70.45	79.83	89.29	74.12	78.42	97	54	18.6	24.4	6	10	7	9	13	21
St. Louis Arsenal	70.21	78.30	91.10	80.20	79.95	103	54	23.1	25.9	14	31	16	24	12	19
Fort Mackinac	60.77	67.58	71.41	64.19	66.00	82	52	16.0	14.0	24	44	16	33	13	38
Fort Snelling	66.87	73.93	82.12	73.93	74.21	95	57	20.8	17.2	2	6	39	48	21	24
Fort Leavenworth	69.77	80.29	85.00	76.35	77.85	91	55	13.2	22.8	10	12	15	27	1	1

MONTH OF JULY, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	14	12	17	38	104	20	49	2	4	2.05	2.50	3.35	4.15	3.02	9	22	15	0	2.84	
8	19	8	22	39	107	13	38	16	51	4.00	5.26	5.16	5.06	4.87	15	16	11	0	7.09	
15	24	2	2	26	38	3	3	37	48	2.27	5.12	5.54	3.77	4.17	14	17	13	0	6.01	
27	46	8	12	20	34	11	24	31	68	3.54	4.45	4.83	4.58	4.35	16	15	11	0	6.14	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	9	0	2.50	Imperfect.
5	6	5	5	14	20	34	53	11	16	3.77	5.29	4.32	6.87	5.06	17	14	12	0	7.15	
36	38	5	7	12	11	16	18	27	27	4.20	4.40	3.10	4.23	3.98	14	17	11	0	6.89	
18	44	19	46	30	70	19	51	13	37	4.06	4.29	4.16	6.16	4.66	13	18	15	0	5.27	
10	22	23	79	33	107	16	50	0	0	5.45	5.83	6.19	6.32	5.95	21	10	10	0	4.60	
13	20	2	4	61	128	7	17	11	22	5.36	5.38	5.40	4.58	5.18	20	11	12	0	4.32	
4	9	58	83	8	14	24	27	5	7	6.64	5.68	3.93	6.06	5.58	22	9	15	0	7.08	
18	23	16	30	13	23	16	26	4	4	5.54	4.80	3.87	4.35	4.64	14	17	16	0	8.80	
17	45	16	27	24	71	3	6	9	12	4.03	4.00	3.60	3.96	3.90	13	18	17	0	14.48	
13	35	8	23	20	53	17	43	42	43	5.16	4.30	3.00	5.13	4.39	13	18	11	0	9.42	
14	32	19	42	22	42	18	34	8	16	4.48	5.03	4.48	6.35	5.08	22	9	9	0	8.86	
6	16	8	15	13	31	14	20	4	5	4.30	4.10	5.22	3.29	4.22	11	20	14	0	14.40	
49	111	41	112	7	11	1	1	0	0	5.32	5.00	5.16	6.77	5.56	19	12	8	0	3.02	
12	29	39	75	23	63	9	25	0	0	6.67	7.48	8.48	8.54	7.79	24	7	5	0	1.14	
10	10	22	10	21	20	2	3	2	1	7.22	7.09	6.54	8.83	7.42	28	3	6	0	1.71	
39	38	54	58	18	18	0	0	0	0	6.87	5.67	5.58	8.83	6.73	23	8	2	0	0.70	
3	5	5	7	54	113	24	47	9	15	4.74	5.80	5.09	6.38	6.19	21	10	6	0	1.17	
13	22	20	38	25	32	33	49	7	8	6.51	6.90	6.29	7.22	6.73	24	7	3	0	0.45	
22	18	24	23	15	26	19	33	2	6	7.24	8.14	8.15	7.24	7.94	24	7	4	0	1.21	Observations inaccurate.
10	23	8	9	8	15	27	83	18	35	5.32	5.06	5.33	5.35	5.25	21	10	4	0	0.94	
59	78	5	10	5	8	1	4	1	3	4.41	5.67	5.96	3.38	4.88	17	14	8	0	4.95	
13	26	31	43	42	80	9	12	3	5	2.73	3.64	4.00	3.70	3.51	14	17	7	0	2.61	

MONTH OF AUGUST, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Adams	65.20	72.90	75.14	66.50	69.94	89	56	19.0	14.0	7	23	21	57	7	11
Fort Hamilton	67.51	72.46	79.70	72.51	73.04	92	58	19.0	15.0	2	6	32	88	10	23
Fort Columbus	68.42	72.32	80.66	71.61	73.25	92	62	18.8	12.2	8	13	37	58	3	2
West Point	67.56	72.22	78.83	71.58	72.55	90	60	17.5	12.5	32	68	11	16	4	6
Watervliet Arsenal	64.94	72.48	81.29	69.23	71.98	92	50	20.0	22.0	..	..	..	..	..	..
Alleghany Arsenal	65.67	75.54	83.80	71.48	74.12	96	58	21.9	16.1	35	31	18	14	12	8
Fort McHenry	68.00	73.30	82.22	73.12	74.16	93	58	18.8	16.2	9	7	25	41	25	17
Fort Monroe	75.51	79.74	85.06	78.67	79.74	94	71	14.3	8.7	9	30	13	39	26	68
Fort Moultrie	79.32	84.51	84.90	82.35	82.77	88	76	5.2	6.8	3	7	9	26	24	80
Charleston Arsenal	78.90	81.00	83.74	80.70	78.58	88	76	9.4	2.6	1	2	29	59	12	30
Oglethorpe Barracks	76.35	81.39	85.90	80.55	81.05	91	74	10.0	7.0	24	27	0	0	43	62
Fort Brooke	75.29	83.25	83.32	78.19	80.01	90	70	10.0	10.0	5	6	9	21	47	43
Barrancas Barracks	75.87	81.64	83.22	78.96	79.92	89	72	9.1	7.9	15	18	9	14	6	8
Mount Vernon Arsenal	71.32	82.00	83.64	75.82	78.19	90	64	11.8	14.2	0	0	15	43	9	23
Baton Rouge	73.91	82.00	86.64	78.30	80.21	95	67	14.8	13.2	8	11	4	7	70	94
Corpus Christi	78.41	82.06	86.67	81.00	82.04	91	74	9.0	8.0	11	21	12	25	16	33
Fort Washita	71.70	81.70	91.80	79.16	81.09	100	58	18.9	23.1	4	11	6	12	35	60
Fort Smith	69.29	82.12	88.12	75.67	78.80	100	57	21.2	21.8	2	2	16	11	32	32
Fort Gibson	71.04	79.53	88.14	77.10	78.95	95	58	16.1	20.9	1	3	7	13	2	2
Fort Scott	65.64	79.67	84.96	73.12	75.85	94	54	18.2	21.8	19	32	18	25	18	24
Jefferson Barracks	69.19	79.00	86.83	75.70	77.68	94	60	16.3	17.7	5	7	21	57	14	31
St. Louis Arsenal	68.10	77.30	89.80	76.28	77.87	100	59	22.1	18.9	13	15	18	29	26	30
Fort Mackinac	63.38	68.74	73.22	66.96	68.07	80	56	12.0	12.0	14	24	11	15	12	32
Fort Snelling	65.22	73.38	83.22	73.61	73.86	94	56	20.1	17.9	2	2	38	41	12	8
Fort Leavenworth	67.68	77.61	86.58	76.38	77.06	94	56	17.0	21.0	4	4	8	10	33	45

MONTH OF AUGUST, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	12	10	17	31	72	16	31	2	2	2.60	3.50	4.00	4.80	3.72	11	20	10	0	3.70	
6	11	14	27	47	123	4	15	9	21	4.90	5.36	5.51	6.22	5.49	17	14	9	0	4.34	
19	22	2	6	41	52	10	12	4	4	3.80	4.61	4.87	5.51	4.69	16	10	10	0	3.88	
13	23	16	27	22	31	4	4	22	49	5.09	5.35	5.00	5.80	5.31	17	14	12	0	2.93	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	7	0	2.90	
6	4	3	3	14	17	26	42	10	7	2.90	5.41	5.22	6.77	5.07	16	15	11	0	6.05	
15	14	4	5	24	27	4	4	18	19	3.29	4.90	4.40	5.13	4.43	12	19	8	0	7.20	
11	18	10	19	21	48	19	38	15	31	5.09	4.54	4.51	6.74	5.23	20	11	12	0	2.48	
11	26	17	49	25	78	19	53	0	0	6.19	5.64	6.06	6.90	6.20	20	11	8	0	9.05	
23	40	2	5	43	87	2	6	5	11	5.70	4.77	4.78	6.10	5.50	18	13	14	0	8.24	
2	6	25	33	4	6	22	24	1	2	5.93	5.22	3.32	5.03	4.78	19	12	15	0	6.44	
16	23	11	20	5	5	24	31	7	8	5.16	4.17	3.03	4.11	4.12	9	22	24	0	9.03	
15	30	8	17	43	96	6	10	13	16	5.67	6.06	5.54	6.58	5.96	20	11	10	0	10.62	
13	35	8	23	20	53	17	43	42	113	5.25	4.50	3.00	5.58	4.55	12	19	10	0	4.74	
16	18	4	5	6	17	14	26	2	8	5.82	3.77	5.35	3.22	4.54	14	17	13	0	15.90	
39	74	34	92	4	4	4	5	2	2	3.16	3.27	3.29	6.70	4.11	12	19	14	0	5.48	
12	28	53	82	7	17	7	14	0	0	6.87	7.61	8.45	8.80	7.94	27	4	5	0	2.30	
12	12	8	9	10	11	0	0	7	3	6.16	6.41	5.70	8.61	6.72	24	7	10	0	5.58	
19	18	32	39	35	33	7	7	0	0	4.70	5.80	5.25	8.41	6.04	23	8	7	0	1.40	
20	25	14	17	8	16	12	16	15	22	2.93	4.03	4.29	7.48	4.68	15	16	10	0	3.09	
23	58	1	3	15	36	15	24	30	64	6.32	7.51	6.58	7.45	6.96	25	6	6	0	2.09	
24	24	8	9	15	21	16	26	4	5	7.90	7.19	7.25	7.19	7.38	25	6	3	0	0.68	Weather observa-
19	25	11	11	14	46	31	103	12	29	5.32	5.12	4.93	7.58	5.73	22	9	2	0	0.28	[tions imperfect.
61	93	5	9	5	8	0	0	0	0	2.38	4.12	5.03	1.96	3.37	10	21	5	0	3.80	
30	39	5	5	9	15	12	14	23	28	5.93	7.64	8.19	7.80	7.39	25	6	3	0	0.08	

MONTH OF SEPTEMBER, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Adams	62.10	65.00	71.00	63.00	65.27	81	52	15.7	13.3	8	35	21	65	4	16
Fort Hamilton	64.23	68.73	77.36	69.50	69.96	90	52	20.0	18.0	14	44	19	61	3	7
Fort Columbus	64.50	69.23	76.16	68.96	69.71	88	52	18.3	17.7	4	9	27	54	1	1
West Point	63.93	68.00	75.74	68.60	69.07	88	51	18.9	18.1	30	81	4	9	8	9
Watervliet Arsenal	59.20	66.97	76.13	64.83	66.78	90	44	23.2	22.8	..	..	..	..	..	..
Alleghany Arsenal	60.71	69.16	78.40	65.70	68.50	90	45	21.5	23.5	27	51	5	12	6	5
Fort McHenry	62.25	69.30	79.18	69.20	69.98	91	45	21.0	25.0	15	15	23	43	0	0
Fort Monroe	70.60	74.23	78.93	73.03	74.20	92	61	17.8	13.2	12	38	20	70	30	67
Charleston Arsenal	75.73	78.20	81.73	78.00	78.41	88	62	9.6	16.4	1	1	60	144	20	52
Fort Moultrie	72.53	81.23	82.90	79.23	78.97	89	62	10.0	17.0	11	39	29	109	40	126
Oglethorpe Barracks	73.03	78.20	80.40	78.36	77.50	93	62	15.5	15.5	52	65	3	9	48	63
Fort Brooke	74.76	81.00	83.80	77.40	79.24	90	70	10.8	9.2	3	7	19	37	62	96
Barrancas Barracks	75.70	81.63	84.70	72.36	78.60	91	66	12.4	12.6	5	8	28	51	18	38
Mount Vernon Arsenal	69.43	79.60	85.60	75.70	77.60	94	58	16.4	19.6	1	5	41	144	9	30
Baton Rouge	72.73	81.73	87.40	78.20	80.01	97	61	17.0	19.0	15	23	11	21	70	134
Corpus Christi	77.06	80.60	86.96	80.00	81.15	94	66	12.9	15.1	12	31	11	26	18	25
Fort Washita	67.56	76.06	87.30	73.60	76.13	96	53	19.9	23.1	14	43	17	50	19	46
Fort Smith	65.80	78.93	86.93	71.26	75.73	94	48	18.3	17.7	2	2	3	7	41	45
Fort Gibson	67.65	75.16	82.50	72.60	74.50	91	52	16.5	22.5	1	1	9	10	8	10
Fort Scott	62.53	72.16	78.16	67.50	70.09	89	46	18.9	24.1	19	30	11	23	13	19
Jefferson Barracks	66.96	72.96	80.16	71.63	72.93	92	49	19.1	23.9	3	4	30	50	20	37
St. Louis Arsenal	65.00	71.16	81.10	72.29	72.38	96	42	23.6	30.4	16	..	14	..	13	..
Fort Mackinac	58.30	62.30	65.16	59.26	61.25	77	45	15.8	15.2	13	26	9	27	11	29
Fort Brady	55.50	62.30	70.50	58.20	61.62	90	42	28.4	19.6	11	19	3	15	10	35
Fort Snelling	53.90	61.20	72.86	63.23	62.80	89	41	26.2	21.8	6	11	36	50	12	18
Fort Leavenworth	62.40	67.63	77.90	68.23	69.04	91	50	22.0	19.0	0	0	8	14	4	6

MONTH OF SEPTEMBER, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	5	6	7	39	118	21	51	4	12	4.10	5.00	7.00	7.10	5.80	18	12	3	0	1.18	
3	6	8	22	55	48	9	24	9	26	6.53	6.26	6.73	7.66	6.79	21	9	1	0	0.20	
21	36	1	1	45	62	0	0	21	33	5.80	6.40	6.36	6.06	6.15	19	11	4	0	0.48	
13	37	30	75	13	22	11	16	14	47	4.86	5.60	5.96	6.66	5.77	20	10	3	0	0.17	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	3	0	1.10	
5	5	8	12	15	16	39	42	15	20	1.80	6.16	6.63	6.80	5.34	20	10	8	0	1.95	
39	38	9	10	25	24	2	3	7	9	5.29	6.70	5.17	7.20	6.09	19	11	9	0	3.88	
15	30	12	16	10	14	15	38	6	14	5.56	6.00	6.33	7.16	6.26	22	8	7	0	5.31	
27	48	0	0	7	11	0	0	4	7	6.86	5.93	5.53	7.60	6.48	21	9	6	0	3.53	
5	15	3	7	2	6	11	27	8	23	6.70	6.60	6.46	8.60	7.34	22	8	6	0	3.25	
2	3	4	6	0	0	9	12	0	0	8.13	6.66	5.86	8.53	7.29	21	9	10	0	7.17	
15	23	6	9	0	0	12	13	3	5	6.13	4.16	3.03	4.80	4.53	15	16	18	0	1.33	
35	86	5	12	18	38	9	12	1	2	5.93	6.23	6.80	6.83	6.45	18	12	9	0	2.65	
33	99	5	14	7	20	1	4	23	81	7.60	6.16	4.76	7.30	6.45	21	9	5	0	2.12	
6	14	2	3	8	12	4	5	4	6	4.46	3.10	4.16	2.60	3.58	9	21	10	0	5.20	
30	62	18	48	3	6	12	15	12	40	5.04	5.43	6.03	7.76	6.06	20	10	6	0	10.49	
12	33	42	104	13	31	3	8	0	0	6.90	8.23	8.86	8.10	7.84	24	6	8	0	9.60	
11	12	10	12	26	30	8	10	9	11	6.36	6.80	6.70	8.26	7.03	21	9	7	0	4.75	
31	36	42	49	21	22	1	3	7	8	4.10	6.03	6.47	7.13	5.93	20	10	6	0	4.76	
8	22	30	81	27	79	6	10	6	12	2.76	4.23	5.03	5.93	4.48	14	16	12	0	5.53	
30	61	9	21	13	29	7	16	8	23	6.50	7.13	7.03	7.60	7.06	20	10	9	0	3.47	
14	..	21	..	21	..	13	..	8	..	6.10	7.30	7.15	6.19	6.68	22	8	7	0	6.28	
14	39	8	13	24	93	22	69	19	50	3.27	3.28	4.30	5.00	3.98	8	22	10	0	1.43	
4	15	9	29	19	58	26	52	33	67	4.60	5.80	8.10	4.10	5.56	17	13	7	0	4.13	
44	64	9	28	11	24	1	2	1	3	2.70	3.70	4.83	2.16	3.34	8	22	6	0	2.23	
53	93	9	22	19	43	0	0	27	40	5.00	5.63	6.73	7.33	6.17	19	11	9	0	3.88	

MONTH OF OCTOBER, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	48.61	52.25	62.61	53.80	54.32	84	33	29.7	21.3	10	31	19	49	8	26
Fort Columbus	48.77	52.51	61.26	54.48	54.00	79	32	25.0	22.0	3	4	27	60	4	11
West Point	46.00	49.90	57.96	51.19	51.26	80	30	28.7	21.3	21	67	4	11	6	20
Watervliet Arsenal	42.16	47.65	54.87	46.90	47.89	78	24	30.1	23.9	..	..	..	..	..	..
Alleghany Arsenal	44.25	53.60	59.54	48.54	51.50	77	30	25.5	21.5	27	50	9	16	7	13
Fort McHenry	46.10	52.40	64.20	54.60	54.32	85	30	30.7	24.3	3	9	20	45	0	0
Fort Monroe	57.48	61.30	66.48	60.90	61.56	80	39	18.4	22.6	9	19	9	24	31	79
Fort Brooke	66.80	73.45	80.35	71.48	73.02	85	55	12.0	18.0	14	20	55	98	31	41
Barrancas Barracks	63.77	65.74	75.38	66.74	67.91	85	43	17.1	24.9	36	50	25	40	15	24
Mount Vernon Arsenal	54.16	65.30	77.00	64.20	65.17	86	38	20.8	27.2	4	14	40	132	7	20
New Orleans	61.11	72.17	76.11	65.90	68.82	84	46	15.2	22.8	7	8	50	112	1	3
Baton Rouge	57.45	67.29	77.96	65.83	67.13	86	42	18.9	25.1	26	34	6	8	81	90
Corpus Christi	65.56	73.16	80.64	73.42	73.69	86	52	12.3	21.7	26	74	12	24	8	16
Fort Washita	56.54	63.29	76.00	64.54	65.09	91	32	25.9	33.1	26	57	9	20	20	53
Fort Smith	50.96	62.28	75.16	57.80	61.55	88	30	26.4	31.6	0	0	18	20	31	34
Fort Gibson	54.68	60.84	72.68	61.56	62.44	86	31	23.6	31.4	0	0	23	25	8	9
Fort Scott	44.70	57.32	66.96	54.35	54.83	83	21	28.2	33.8	15	32	18	31	8	11
Jefferson Barracks	49.64	54.51	63.64	53.77	55.39	82	28	26.6	27.4	3	4	26	49	16	25
St. Louis Arsenal	45.17	53.23	63.50	54.30	54.05	88	28	33.9	26.1	14	20	17	17	9	11
Fort Mackinac	39.51	43.19	45.83	42.03	42.64	64	22	21.4	20.6	12	25	19	67	9	31
Fort Brady	38.30	45.00	53.20	43.00	44.87	72	28	27.1	16.9	28	66	12	31	10	28
Fort Snelling	39.12	43.61	43.54	45.22	42.87	76	23	33.1	19.9	12	24	41	60	28	38
Fort Leavenworth	46.29	55.09	64.48	55.57	54.36	84	26	29.6	28.4	0	0	11	15	0	0

MONTH OF OCTOBER, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	19	7	18	43	111	26	86	6	19	6.64	6.38	6.29	7.00	6.57	20	11	8	0	1.58	
12	14	4	15	37	47	4	4	33	53	5.51	5.12	5.12	5.77	5.38	19	12	5	0	1.34	
19	63	18	48	12	19	13	31	31	83	4.61	4.80	3.64	4.41	4.36	15	16	6	0	2.46	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	5	2	2.16	
0	0	12	35	20	28	40	64	9	20	2.51	3.87	4.83	6.12	4.33	15	16	8	0	4.78	
28	30	9	12	29	34	17	22	18	29	5.28	6.27	5.30	7.23	6.02	20	11	4	0	1.30	
18	43	13	25	14	31	15	25	15	36	6.09	6.51	6.58	7.22	6.60	24	7	5	0	2.68	
1	8	2	9	2	2	9	11	10	12	6.09	6.61	5.54	7.74	6.49	25	6	3	0	3.11	
8	13	1	3	17	33	8	9	8	14	7.67	8.32	8.74	9.03	8.44	26	5	2	0	0.48	
6	14	8	11	5	12	1	2	53	124	7.50	7.50	7.25	8.50	7.68	25	6	1	0	0.40	
16	28	2	2	4	10	11	19	28	91	9.10	8.12	9.60	9.10	8.98	27	4	1	0	....	
0	0	0	0	0	0	6	15	5	14	1.64	1.83	1.67	1.38	1.63	4	27	2	0	0.80	
6	47	24	85	2	3	1	1	7	16	5.63	6.16	6.36	9.12	6.82	16	9	1	0	....	First 25 days
13	40	34	156	8	26	13	28	1	3	6.12	7.61	7.25	8.03	7.25	22	9	4	0	2.35	
11	16	17	20	30	35	2	3	15	20	7.32	7.41	7.41	7.26	7.35	24	7	4	0	2.30	
47	48	32	38	11	12	3	4	0	0	3.42	6.84	6.78	7.13	6.04	23	8	3	0	0.67	
19	30	24	77	13	34	15	33	12	31	1.74	3.93	3.80	6.00	3.86	13	18	6	0	2.56	
24	43	2	6	19	31	4	10	30	68	7.00	7.90	7.45	7.96	7.57	25	6	4	0	0.82	
19	23	18	24	20	22	12	15	15	16	5.15	6.16	7.14	6.13	6.14	23	8	6	0	4.32	
6	17	4	7	24	83	11	31	39	93	2.83	2.74	4.03	3.00	3.15	8	23	6	3	1.13	
5	12	11	22	21	45	19	31	17	54	5.20	6.40	7.60	5.30	6.12	19	12	7	5	3.90	
28	54	3	7	7	8	0	0	5	8	2.80	3.87	4.67	2.06	3.38	9	22	7	0	2.45	
23	49	0	0	28	45	0	0	62	76	8.06	7.29	8.00	8.19	7.88	23	8	4	0	1.03	

MONTH OF NOVEMBER, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E:	
Fort Hamilton	45.20	46.93	57.66	46.83	49.15	60	25	10.8	24.2	3	13	30	92	26	83
Fort Columbus	45.93	48.06	50.96	47.63	48.15	65	22	16.8	26.2	16	29	44	117	6	25
West Point	42.93	44.46	48.66	45.00	45.26	58	22	12.7	23.3	44	129	9	30	9	14
Watervliet Arsenal	37.90	41.47	48.33	42.10	42.45	64	22	21.5	20.5	..	..	..	..	..	..
Alleghany Arsenal	40.81	44.43	52.30	43.66	45.30	66	15	20.7	30.3	2	3	26	41	26	30
Fort McHenry	44.23	47.18	52.60	45.25	47.31	69	20	61.7	27.3	13	22	48	105	0	0
Fort Monroe	51.70	53.76	58.56	53.83	54.46	71	31	16.5	23.5	2	3	12	42	16	57
Fort Moultrie	55.96	60.56	66.10	63.20	61.46	78	37	16.5	24.5	39	71	12	23	11	14
Fort Brooke	57.73	66.90	76.33	63.43	66.10	84	31	17.9	35.1	29	37	39	50	35	25
Barrancas Barracks	57.40	61.30	68.40	60.63	61.93	78	32	16.1	29.9	36	71	17	25	11	15
Mount Vernon Arsenal	52.53	57.54	68.73	56.70	58.87	78	32	19.1	26.9	9	9	8	10	0	0
New Orleans	57.23	69.19	71.18	58.17	63.94	81	32	17.1	31.9	3	5	11	13	1	1
Baton Rouge	53.53	62.20	73.63	61.20	62.64	84	29	21.4	33.6	44	52	2	4	48	70
Matamoros	75.91	74.30	78.65	72.60	75.36	84	62	9.6	13.4	7	25	6	14	32	57
Fort Washita	46.13	53.36	64.90	55.96	55.09	78	29	22.9	26.1	27	62	13	20	11	18
Fort Smith	42.60	48.60	63.46	50.20	51.21	80	20	28.8	31.2	24	24	5	7	53	61
Fort Gibson	45.40	50.96	62.67	51.24	52.59	76	25	23.4	27.6	2	2	21	22	4	4
Fort Scott	36.83	44.26	54.50	44.06	44.91	79	22	34.1	22.9	9	22	8	14	8	15
Jefferson Barracks	38.16	43.56	53.13	45.46	45.08	67	17	21.9	28.1	2	3	25	42	2	4
St. Louis Arsenal	37.16	41.16	50.50	42.29	42.78	63	25	25.2	17.8	14	15	9	14	11	12
Fort Mackinac	36.56	37.73	39.90	37.90	37.97	52	11	14.0	27.0	6	14	15	33	18	53
Fort Brady	37.80	39.90	42.60	38.60	39.72	64	12	24.3	27.7	9	11	11	28	28	67
Fort Snelling	35.23	37.80	46.20	40.16	39.85	62	7	22.2	32.8	7	10	20	32	33	40
Fort Leavenworth	37.86	39.56	57.93	44.63	45.00	66	18	21.0	27.0	0	0	2	2	3	6

MONTH OF NOVEMBER, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	8	13	36	13	44	16	74	17	89	3.60	3.76	3.00	3.40	3.44	11	19	13	1	8.90	
6	13	3	8	11	25	14	42	20	67	2.10	2.50	2.86	3.50	2.74	8	22	13	3	8.36	
9	14	8	16	7	10	16	52	18	86	1.10	2.00	2.43	2.56	2.02	5	25	11	2	10.02	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	8	2	5.00	
6	8	6	9	5	9	22	34	27	92	1.86	3.33	2.26	2.26	2.42	6	24	12	3	2.60	
8	9	4	5	12	12	17	61	18	57	2.29	3.80	2.80	4.21	3.27	9	21	12	0	7.17	
16	33	4	7	10	21	26	81	34	81	4.13	4.03	3.83	5.70	4.42	14	16	8	0	9.35	
2	3	22	31	6	19	14	33	12	21	6.53	6.20	6.46	7.50	6.47	20	10	4	0	0.33	
4	4	1	3	1	3	3	4	8	13	6.33	7.70	5.80	7.00	4.70	23	7	2	0	0.18	
12	27	14	39	17	42	4	9	1	5	6.16	7.13	7.63	7.83	7.25	22	8	6	0	4.73	
15	21	6	15	20	28	5	11	57	104	6.10	6.20	6.80	7.63	6.68	17	13	3	0	3.75	
29	35	13	14	17	34	0	0	29	61	6.26	7.11	7.18	8.20	7.25	20	10	4	0	1.64	
3	3	7	8	4	9	7	9	5	19	4.20	2.36	2.63	2.20	2.84	6	24	5	0	6.20	
18	53	14	28	5	15	2	4	0	0	7.56	6.08	4.39	9.17	6.80	19	4	3	0	....	Observations for the
21	63	27	77	9	18	8	15	4	10	6.86	7.96	7.70	7.04	7.40	22	8	7	0	3.55	[last 23 days.
1	1	22	26	6	8	25	27	6	6	6.36	6.36	6.43	7.23	6.59	22	8	7	0	2.14	
50	56	20	21	10	10	0	0	13	13	3.55	5.52	6.21	6.23	5.37	17	13	3	0	2.53	
29	53	14	45	19	58	10	27	23	55	2.33	3.33	4.06	5.26	3.75	9	21	6	0	2.97	
31	57	1	2	22	43	8	12	29	59	4.16	4.53	4.93	5.26	4.59	15	5	6	1	1.42	
19	23	15	16	17	27	18	26	17	30	5.11	6.13	6.17	5.18	5.64	23	7	7	0	4.19	
19	58	8	23	15	48	12	36	27	67	1.56	1.57	1.38	3.50	2.00	4	26	9	4	2.14	
15	37	14	30	10	17	11	29	18	68	3.10	3.20	4.40	4.20	3.97	11	19	8	1	2.65	
38	61	2	3	7	12	4	6	9	21	2.00	3.33	3.34	1.53	2.79	4	26	5	1	2.10	
40	79	5	7	7	15	4	6	58	99	5.10	5.00	6.33	7.16	5.89	18	12	5	0	1.14	

MONTH OF DECEMBER, 1846.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	32.67	33.87	39.06	35.16	35.19	50	22	14.8	13.2	6	21	16	52	8	17
Fort Columbus	32.19	32.87	37.41	33.12	33.90	50	20	16.1	13.9	0	0	8	19	0	0
West Point	28.48	29.96	33.77	30.77	30.74	47	14	16.3	16.7	11	34	10	18	2	4
Watervliet Arsenal	21.84	24.61	28.74	26.55	25.43	48	4	22.6	21.4	12	28	0	0	0	0
Alleghany Arsenal	32.32	35.60	39.25	35.60	35.70	60	16	24.3	19.7	9	10	19	20	18	18
Fort McHenry	31.19	33.25	40.60	34.12	34.79	56	20	21.2	14.8	9	17	20	43	4	8
Fort Monroe	43.09	44.90	50.87	46.09	46.24	68	29	21.8	17.2	10	22	7	12	15	33
Fort Moultrie	50.09	54.61	60.55	55.51	55.44	71	27	15.5	18.5	18	22	6	11	7	8
Fort Brooke	56.14	63.90	73.16	60.20	63.35	82	37	18.7	26.3	17	18	29	34	18	24
Barrancas Barracks	52.06	58.38	64.12	56.74	57.82	74	29	16.2	28.8	18	27	30	46	14	21
Mount Vernon Arsenal	50.10	55.81	67.40	55.60	57.23	76	28	18.8	29.2	10	12	22	22	0	0
New Orleans Barracks	56.30	64.15	67.20	60.90	62.14	81	40	18.9	22.1	4	18	27	33	10	11
Baton Rouge	52.93	58.70	68.30	58.48	59.60	82	26	22.4	33.6	12	15	6	9	71	84
San Antonio	43.19	47.93	52.19	46.00	47.32	66	22	18.7	25.3	33	55	4	6	4	8
Matamoros	69.93	71.51	76.06	73.74	72.81	82	60	9.2	12.8	24	30	15	22	15	27
Fort Washita	43.29	46.16	55.51	48.51	48.37	74	28	25.6	20.4	17	34	8	10	19	30
Fort Smith	41.03	43.29	54.90	46.64	46.47	76	30	29.5	16.5	6	8	5	7	53	60
Fort Gibson	42.17	44.34	51.90	45.30	45.93	73	26	27.1	19.9	9	9	11	12	4	4
Fort Scott	32.16	36.70	43.51	36.87	37.31	64	4	26.7	33.3	11	21	20	33	11	16
Jefferson Barracks	34.87	37.58	43.40	38.51	38.59	67	12	28.4	26.6	5	6	15	22	9	13
St. Louis Arsenal	33.22	38.30	41.15	37.19	37.46	60	20	22.5	17.5	18	18	27	30	15	18
Fort Mackinac	24.70	25.09	28.00	25.51	25.82	46	8	20.2	17.8	5	9	27	56	7	16
Fort Brady	22.50	24.50	31.50	24.50	25.75	44	6	18.3	19.7	7	12	22	42	27	76
Fort Snelling	18.64	19.90	26.38	21.41	21.57	42	3	20.4	18.6	11	15	20	21	36	42
Fort Leavenworth	29.96	31.00	39.67	31.70	33.08	68	12	34.9	21.1	0	0	9	19	1	2

MONTH OF DECEMBER, 1846.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	15	9	21	14	43	23	93	42	186	4.12	3.96	5.06	5.71	4.71	15	16	2	5	2.68	
4	4	0	0	26	39	0	0	86	223	3.32	3.54	5.06	5.03	4.23	11	20	8	4	2.99	
15	22	0	0	22	34	28	68	36	118	3.42	3.96	3.19	4.32	3.72	9	22	7	4	2.80	
1	4	23	60	15	32	43	90	26	60	....	....	....	....	....	..	..	3	5	2.81	
2	10	0	0	16	51	34	70	26	77	3.19	3.32	3.30	3.90	3.42	8	23	13	3	5.16	
14	15	0	0	15	27	32	109	30	32	3.19	3.19	4.14	5.50	4.00	13	18	4	3	2.10	
7	16	6	15	29	68	23	52	27	72	4.71	5.32	5.64	6.22	5.47	16	15	4	2	3.14	
6	8	18	21	9	20	48	55	15	16	6.38	9.13	6.68	6.90	7.27	20	11	3	0	1.35	
17	17	16	18	11	12	3	6	13	14	3.29	6.20	5.90	8.90	6.07	21	10	1	0	0.50	
16	35	9	26	16	38	7	16	7	17	6.16	6.25	6.12	7.48	6.67	22	9	8	0	2.36	
30	58	0	0	27	28	2	2	33	55	3.10	3.72	4.30	6.10	4.30	12	19	7	0	4.60	
19	49	10	11	17	36	2	2	17	56	6.14	7.17	7.11	7.15	6.99	21	10	4	0	0.80	
10	21	6	9	9	31	7	9	3	7	5.87	4.67	4.51	2.61	4.41	17	14	11	0	4.70	
7	12	5	7	12	21	45	72	6	6	2.06	1.77	1.80	2.32	2.00	7	24	13	0	....	
20	51	33	92	0	0	0	0	8	10	5.87	5.32	5.09	7.16	6.15	20	11	4	0	....	
13	29	28	87	5	6	26	53	8	14	4.64	4.45	5.64	6.19	5.23	18	13	7	0	3.01	
1	1	22	26	6	8	25	26	6	6	4.80	4.51	4.93	5.90	5.03	17	14	9	0	5.40	
47	50	21	25	10	12	7	7	15	20	2.54	2.51	4.09	5.51	3.38	12	19	4	0	4.88	
4	7	21	63	23	52	13	28	21	43	1.61	2.58	3.32	4.12	2.90	10	21	6	4	3.49	
35	62	3	8	12	21	10	28	35	76	3.41	4.06	3.58	4.74	3.94	11	20	5	5	10.22	
12	13	14	18	16	21	12	31	10	18	4.16	4.23	4.17	3.27	3.97	16	15	10	1	13.55	
17	63	11	38	12	47	15	60	30	79	1.83	2.00	2.96	2.70	2.37	4	27	3	9	1.20	
13	27	2	6	15	43	8	23	27	77	4.10	5.60	4.50	5.00	5.07	14	17	1	6	2.00	
34	41	3	4	5	12	10	28	5	12	0.87	1.58	2.16	1.80	1.60	2	29	1	3	0.21	
8	16	14	23	28	61	12	19	52	79	4.87	4.29	5.12	4.77	4.76	15	16	8	2	2.05	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Adams........	41 30	71 19	40	30.67	25.70	36.35	45.83	54.52	63.37	70.55	69.94	65.27
Fort Trumbull.......	41 22	72 05	50	30.19	25.62	38.81	48.10	55.62	......	......	......	......
Fort Hamilton.......	40 37	74 02	25	31.94	27.04	40.03	49.26	59.27	65.67	71.96	73.04	69.96
Fort Columbus.......	40 42	74 01	23	31.37	27.41	39.31	50.33	60.41	67.36	72.21	73.35	69.71
West Point.........	41 23	74 00	167	27.48	23.65	37.33	50.00	60.25	67.32	72.25	72.55	69.07
Watervliet Arsenal ..	42 50	73 55	50	16.98	17.39	29.85	47.07	60.15	67.50	71.87	71.98	66.78
Plattsburg Barracks..	44 41	73 30	186	18.70	12.82	31.05	44.02	54.72	61.52	......	......	......
Madison Barracks....	43 57	76 15	262	21.53	16.16	31.62	45.44	56.83	63.64	......	......	......
Fort Ontario	43 20	76 40	250	24.70	21.36	31.17	45.02	56.52	64.15	......	......	......
Fort Niagara........	43 18	79 08	250	28.75	24.57	35.20	44.41	55.07	62.83	......	......	......
Alleghany Arsenal...	40 32	80 12	704	29.27	27.74	40.09	54.28	65.42	68.92	73.27	74.12	68.50
Carlisle Barracks	40 12	77 14	?	34.58	32.48	39.90	51.42	......	......	......	......	......
Fort Mifflin.........	39 51	75 15	40	32.23	28.75	41.75	52.46	......	......	......	......	......
Fort McHenry.......	39 18	76 33	36	32.29	29.64	42.02	52.98	64.81	68.09	74.30	74.16	69.98
Fort Monroe........	37 00	76 15	20	40.90	38.87	48.91	57.29	70.00	73.95	78.86	79.74	74.20
Fort Moultrie........	32 42	79 56	20	50.65	51.66	58.63	65.95	74.36	79.33	80.65	82.77	78.97
Charleston Arsenal...	32 46	79 57	40?	......	......	......	......	73.28	77.35	76.76	78.58	78 41
Augusta Arsenal.....	33 28	81 53	600?	45.83	46.52	57.64	65.56	......	......	......	......	......
Oglethorpe Barracks .	32 05	81 07	40	52.39	53.71	61.24	64.07	75.44	78.41	79.71	81.05	77.50
Fort Marion.........	29 80	81 30	12	57.50	56.75	64.12	69.05	75.07	77.82	......	......	......
Fort Brooke.........	28 00	82 28	20	59.71	62.08	66.58	72.15	76.47	79.31	79.88	80.01	79.24
Barrancas Barracks ..	30 18	87 27	20	52.11	53.53	62.02	66.90	......	......	80.27	79.92	78.60
Mt. Vernon Arsenal..	31 12	88 20	75	48.93	50.63	61.57	64.18	72.72	76.52	77.43	78.19	77.60
Fort Wood..........	30 08	89 51	20	53.93	54.83	62.40	69.29	......	......	......	......	......
Fort Pike............	30 10	89 38	20	49.98	54.51	63.83	67.03	......	......	......	......	......
New Orleans	29 57	90 00	20	......	......	61.50	67.16	75.28	80.14	82.73	......	......
Baton Rouge........	30 26	91 18	41	52.00	54.10	62.30	68.07	75.60	78.86	81.37	80.21	80.01
Corpus Christi........	27 47	97 27	20	56.30	56.98	63.21	68.50	77.29	80.10	82.22	82.04	81.15
San Antonio.........	29 25	98 25	?	49.87	51.99	58.84	67.83	74.42	78.04	......	......	......
Matamoros*.........	25 53	97 36	50?	......	......	......	......	......	......	......	......	......
Fort Towson........	34 00	95 33	150?	43.60	42.10	53.85	61.27	......	......	......	......	......
Fort Washita........	34 09	96 27	200?	47.80	44.90	55.94	63.46	72.58	74.79	81.76	81.09	76.13
Fort Smith..........	35 23	94 29	460	39.82	38.70	52.46	62.56	71.24	73.50	80.65	78.80	75.73
Fort Gibson.........	35 47	95 10	842	42.73	38.44	52.61	61.87	70.00	71.32	79.74	78.95	74.50
Fort Scott...........	37 45	94 35	1000?	37.33	29.93	46.05	57.34	68.97	69.26	78.40	75.85	70.09
Jefferson Barracks....	38 28	90 15	382	37.78	30.02	46.85	59.35	69.65	69.32	78.42	77.68	72.93
St. Louis Arsenal....	38 40	90 05	450	37.20	27.93	45.71	54.91	68.97	71.11	79.95	77.87	72.38
Detroit Barracks.....	42 20	82 58	580	29.32	24.62	36.85	50.03	62.92	66.27	......	......	......
Fort Gratiot.........	42 55	82 23	598	26.53	22.96	34.63	45.36	56.54	62.15	......	......	......
Fort Mackinac.......	45 51	84 38	728	23.92	18.00	30.14	38.32	50.41	58.77	66.00	68.07	61.25
Fort Brady..........	46 30	84 43	600	23.80	17.12	31.70	42.17	52.95	61.72	......	......	61.62
Fort Wilkins........	47 30	88 00	620	25.40	19.09	31.58	39.26	52.03	57.41	......	......	......
Fort Atkinson	43 00	92 00	700	29.70	22.35	38.00	45.58	64.21	......	......	......	......
Fort Snelling........	44 53	93 10	820	28.81	19.53	38.41	46.37	63.65	66.82	74.21	73.86	62.80
Fort Des Moines......	41 32	93 38	780?	32.25	23.90	......	......	......	......	......	......	......
Fort Leavenworth ...	39 21	94 44	896	38.22	31.01	46.65	54.92	66.80	68.87	77.85	77.06	69.04

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* The observations at this station may be identified with those subsequently continued at Fort Brown, which is on the opposite side of the Rio Grande. They are important in determining the climatology of the district of the lower Rio Grande.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1846.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
......	......	......	45.57	67.95	......	......	......	89	2	....	....	Rhode Island.
......	......	......	47.51	......	......	......	......	....	0	....	....	Connecticut.
54.32	49.15	35.19	49.52	70.22	57.81	31.39	52.23	92	5	39.8	47.2	New York Harbor.
54.00	48.15	33.90	50.02	70.94	57.29	30.89	52.28	95	5	42.7	47.3	New York Harbor.
51.26	45.26	30.74	49.19	70.71	55.19	27.29	50.59	92	4	41.4	46.6	New York.
47.89	42.45	25.43	45.69	70.45	52.37	19.93	47.11	96	—18	48.9	65.1	New York.
......	......	......	43.26	......	......	......	......	....	—10	....	....	New York.
......	......	......	44.63	......	......	......	......	....	—13	....	....	New York.
......	......	......	44.24	......	......	......	......	....	— 5	....	....	New York.
......	......	......	44.89	......	......	......	......	....	4	....	....	New York.
51.50	45.30	35.70	53.26	72.10	55.10	30.80	52.81	96	— 6	43.2	58.8	Pennsylvania.
......	......	......	......	......	......	......	......	....	6	....	....	Pennsylvania.
......	......	......	......	......	......	......	......	....	5	....	....	Pennsylvania.
54.32	47.31	34.79	53.27	71.85	57.20	32.24	53.64	95	8	41.4	45.6	Maryland.
61.56	54.46	46.24	58.73	77.52	63.41	42.00	60.41	95	19	34.6	41.4	Virginia.
......	61.46	53.44	66.31	80.92	......	51.92	......	91	31	....	....	Sullivan's Island, S. Carolina.
......	......	......	......	77.56	......	......	......	89	....	....	....	South Carolina.
......	......	......	......	......	......	......	......	....	25	....	....	Georgia.
......	......	......	66.92	79.72	......	......	......	92	32	....	....	Georgia.
......	......	......	69.41	......	......	......	......	90	39	....	....	St. Augustine, Florida.
73.02	66.10	63.35	71.73	79.73	72.79	61.71	71.49	90	33	18.5	38.5	Florida.
67.91	61.93	57.82	......	80.00	69.48	54.49	......	91	30	....	....	Pensacola, Florida.
65.17	58.87	57.23	66.16	77.38	67.21	52.26	65.75	94	26	28.3	38.7	Alabama.
......	......	......	......	......	......	......	......	....	30	....	....	Louisiana.
......	......	......	......	......	......	......	......	....	28	....	....	Louisiana.
68.82	63.94	62.14	67.98	......	......	......	......	88	....	....	....	Louisiana.
67.13	62.64	59.60	68.66	80.14	69.93	55.23	68.49	97	26	28.5	42.5	Louisiana.
73.69	......	......	69.66	81.45	......	......	......	89	30	....	....	Corpus Christi Bay, Texas.
......	......	47.32	66.93	......	......	......	......	92	22	....	....	Bexar county, Texas,
......	75.36	72.81	......	......	......	......	......	....	....	....	....	Lower Rio Grande, Mexico.
......	......	......	......	......	......	......	......	....	19	....	....	Indian Territory.
65.09	55.09	48.37	63.99	79.88	65.44	47.02	64.08	100	22	35.9	42.1	Indian Territory.
61.55	51.21	46.47	62.09	77.65	62.83	41.66	61.06	100	16	38.9	45.1	Arkansas.
62.44	52.59	45.93	61.49	76.67	63.18	42.40	60.93	95	16	34.1	44.9	Indian Territory.
54.83	44.91	37.31	57.45	74.50	56.61	34.86	55.85	95	— 3	39.2	58.8	Kansas.
55.39	45.08	38.59	58.62	75.14	57.80	35.46	56.76	97	2	40.2	54.8	Missouri.
54.05	42.78	37.46	56.53	76.31	56.40	34.20	55.86	100	0	44.2	55.8	Missouri.
......	......	......	49.95	......	......	......	......	92	— 7	....	....	Michigan.
......	......	......	45.51	......	......	......	......	88	—11	....	....	Michigan.
42.64	37.97	25.82	39.62	64.28	46.95	22.58	43.36	82	—10	38.7	53.3	Michigan.
44.87	39.72	25.75	42.27	......	48.74	22.12	......	93	—22	....	....	Michigan.
......	......	......	40.96	......	......	......	......	....	— 9	....	....	Copper Harbor, Lake Superior.
......	......	......	49.26	......	......	......	......	....	—12	....	....	Iowa.
42.87	39.85	21.57	49.48	71.62	48.51	23.30	48.23	95	—16	46.8	64.2	Minnesota.
......	......	......	......	......	......	......	......	....	— 6	....	....	Iowa.
54.36	45.00	33.08	56.12	74.59	56.13	34.10	55.86	94	— 6	38.2	61.8	Kansas.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1846.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Adams	2.49	1.98	2.88	1.95	2.75	0.79	2.84	3.70	1.18	....	....	....	7.58	7.33	....	....	....
Fort Trumbull	3.04	2.24	3.35	2.12	4.69	....	....	....	....	....	....	....	10.16	....	....	....	....
Fort Hamilton	5.15	5.55	2.82	2.40	9.84	2.14	7.09	4.34	0.20	1.58	8.90	2.68	15.06	13.57	10.38	13.38	52.69
Fort Columbus	3.92	3.01	3.82	4.01	9.70	1.39	6.01	3.88	0.48	1.34	8.36	2.99	17.53	11.28	10.18	9.92	48.91
West Point	3.42	2.78	3.90	3.04	6.62	2.30	6.14	2.93	0.17	2.46	10.02	2.80	13.56	11.37	12.65	9.00	46.58
Watervliet Arsenal	2.86	2.20	2.85	0.86	3.29	2.96	2.50	2.90	1.10	2.16	5.00	2.81	7.00	8.36	8.26	7.87	31·49
Plattsburg Barracks	1.13	0.74	1.36	0.62	2.91	3.11	....	....	....	....	....	....	4.87	....	....	....	....
Madison Barracks	2.61	2.24	2.28	1.96	3.49	1.98	....	....	....	....	....	....	7.73	....	....	....	....
Fort Ontario	2.30	2.93	1.55	1.29	1.82	1.38	...	....	....	....	....	....	4.66	....	....	....	....
Fort Niagara	1.90	1.18	1.20	1.08	2.08	1.62	....	....	....	....	....	....	4.36	....	....	....	....
Alleghany Arsenal	2.92	2.73	2.02	3.76	4.62	4.05	7.15	6.05	1.95	4.78	2.60	5.16	10.40	17.25	9.33	10.81	47.79
Fort McHenry	2.83	1.82	3.54	2.38	5.77	1.78	6.89	7.20	3.88	1.30	7.17	2.10	11.69	15.87	12.35	6.75	46.66
Fort Monroe	3.55	2.97	3.33	3.28	4.36	4.67	5.27	2.48	5.31	2.68	9.35	3.14	10.97	12.42	17.34	9.66	50.39
Fort Moultrie	4.97	3.51	5.50	3.35	1.90	3.25	4.60	9.05	3.25	....	0.33	1.35	10.75	16.90	....	9.83	....
Augusta Arsenal	3.59	4.25	8.60	2.89	....	....	....	....	....	....	....	....	....	....	....	....	....
Oglethorpe Barracks	6.54	4.70	5.06	3.72	1.36	5.81	7.08	6.44	7.17	....	....	....	10.84	19.33	....	....	....
Fort Marion	4.13	4.32	1.67	1.70	1.77	6.28	....	....	....	....	....	....	5.14	....	....	....	....
Fort Brooke	3.01	4.97	7.73	2.93	4.44	8.17	8.80	9.03	1.33	3.11	0.18	0.54	15.10	26.00	4.62	8.52	44.24
Barrancas Barracks	8.28	10.46	5.80	6.34	....	....	14.48	10.62	2.65	0.48	4.73	2.36	....	....	7.86	21.10	....
Mount Vernon Arsenal	6.82	5.31	5.63	11.51	5 49	5.57	9.42	4.74	2.12	0.40	3.75	4.60	22.63	19.73	6.27	16.73	65.36
Fort Wood	6.45	3.94	10.61	18.17	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Pike	8.40	4.19	14.25	13.75	....	....	....	....	....	....	....	....	....	....	....	....	....
New Orleans	....	....	7.88	10.70	5.38	1.85	8.86	....	....	....	1.64	0.80	23.96	....	....	....	....
Baton Rouge	4.80	5.70	12.30	17.20	13.20	16.00	14.40	15.90	5.20	0.80	6.20	4.70	42.70	46.50	12.20	15.20	116.60?
Corpus Christi	3.96	2.37	1.25	3.71	3.44	6.65	3.02	5.48	10.49	....	....	....	8.40	15.15	....	....	....
Fort Towson	3.20	2.75	2.00	5.99	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Washita	4.40	2.73	2.52	3.24	4.70	10.23	1.14	2.30	9.60	2.35	3.55	3.01	10.46	13.67	15.50	10.14	49.77
Fort Smith	1.93	2.27	1.52	5.48	5.68	7.00	1.71	5.58	4.75	2.30	2.14	5.40	12.65	14.29	9.19	9.60	45.73
Fort Gibson	1.02	1.54	1.79	3.04	4.60	6.92	0.70	1.40	4.76	0.67	2.53	4.88	9.43	9.02	7.96	7.44	33.85
Fort Scott	1.27	0.92	1.61	2.64	1.76	7.03	1.17	3.09	5.53	2.56	2.97	3.49	6.01	11.29	11.06	5.68	34.04
Jefferson Barracks	3.60	1.02	1.73	4.83	3.50	2.86	0.45	2.09	3.47	0.82	1.42	10.22	7.58	5.40	5.71	14.86	33.55
St. Louis Arsenal	2 20	2.19	3.06	7.59	5.97	4.94	1.21	0.68	6.28	4.32	4.19	13.55	16.61	6.83	14.79	17.94	56.17
Detroit Barracks	4.06	2.13	3.15	1.68	5.42	3.55	....	....	....	....	....	....	10.25	....	....	....	....
Fort Gratiot	2.97	1.61	2.17	2.19	4.55	2.35	....	....	....	....	....	....	8.91	....	....	....	....
Fort Mackinac	1.29	0.26	1.77	2.01	3.27	0.89	0.94	0.28	1.43	1.13	2.14	1.20	7.05	3.11	4.70	2.75	17.61
Fort Brady	1.01	0.94	2.51	2.65	2.03	0.95	....	....	4.13	3.90	2.65	2.00	7.19	....	10.68	3.95	....
Fort Wilkins	0.83	1.72	3.84	2.95	1.63	1.12	....	....	....	....	....	....	8.42	....	....	....	....
Fort Atkinson	1.00	0.03	3.12	6.53	6.33	....	....	....	....	....	....	....	15.98	....	....	....	....
Fort Snelling	0.52	0.03	1.71	2.90	2.00	3.10	4.95	3.80	2.23	2.45	2.10	0.21	6.61	11.85	6.88	0.76	26.10
Fort Des Moines	0.90	0.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Leavenworth	0.40	0.20	1.10	3.90	3.20	4.16	2.61	0.08	3.88	1.03	1.14	2.05	8.20	6.85	6.05	2.65	23.75

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Adams (*a*)......	112	161	75	15	27	50	12	12	19	61	38	24
Fort Hamilton......	191	174	81	13	27	74	28	22	33	78	52	48
Fort Columbus......	188	177	96	22	16	82	8	44	21	71	46	104
West Point.........	166	199	97	14	51	17	9	63	41	39	35	109
Plattsburg Bar'cks (*b*)	66	115	34	13	28	22	11	14	29	8	41	16
Madison Barracks (*c*)	52	129	43	30	2	44	3	28	2	58	7	31
Alleghany Arsenal...	152	213	112	17	50	43	35	22	24	40	90	51
Fort Mifflin (*d*)......	55	65	23	13	8	13	8	5	11	24	17	25
Fort McHenry......	158	207	79	22	22	86	14	63	16	55	44	63
Fort Monroe........	201	164	106	5	23	38	64	47	27	59	53	54
Fort Moultrie (*e*)....	213	121	69	0	22	48	44	26	43	54	55	18
Augusta Arsenal (*f*).	66	54	25	1	8	16	9	7	11	14	12	12
Oglethorpe Bar'ks (*g*)	163	80	80	0	47	7	53	6	48	9	64	4
Fort Marion.........	78	103	41	0	17	5	15	31	19	15	19	16
Fort Brooke.........	205	160	116	0	25	92	84	27	39	41	39	16
Mt. Vernon Arsenal..	204	169	83	0	10	65	18	64	22	54	17	115
Baton Rouge........	152	213	123	0	68	32	163	20	16	22	30	10
Corpus Christi (*h*)...	142	147	72	0	23	31	40	73	59	16	12	22
San Antonio (*i*).....	88	124	64	0	24	9	33	13	68	15	37	4
Fort Washita........	263	102	81	3	36	27	70	42	102	29	42	15
Fort Smith..........	239	126	90	3	17	47	114	28	33	47	50	28
Fort Gibson........	198	167	59	2	14	50	19	115	86	37	13	23
Fort Scott..........	160	205	87	3	40	49	29	38	49	69	38	53
Jefferson Barracks...	204	151	76	9	12	53	80	21	42	32	53	88
St. Louis Arsenal....	303	62	84	9	43	47	46	47	51	43	52	31
Fort Gratiot (*k*).....	63	118	47	28	10	48	16	32	27	22	11	8
Fort Mackinac......	148	217	59	44	39	57	50	39	22	45	52	60
Fort Brady (*l*).......	130	173	48	42	21	19	43	62	16	20	41	61
Fort Snelling........	116	249	60	16	17	75	58	109	14	23	23	35
Fort Wilkins (*m*)....	83	98	26	44	16	12	13	25	23	18	37	27
Fort Leavenworth (*n*)	220	141	61	6	34	30	40	64	56	47	14	74

(*a*) First nine months.
(*b*) First six months.
(*c*) First six months.
(*d*) First four months.
(*e*) October wanting.
(*f*) First four months.
(*g*) From January to September, inclusive, (except April.)
(*h*) From January to October, inclusive, (14 days wanting.)
(*i*) From January to June, inclusive, and December.
(*k*) First six months.
(*l*) July and August wanting.
(*m*) First six months.
(*n*) June incomplete.

OBSERVATIONS FOR 1846.

WINDS.

No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
109	410	199	571	46	101	52	110	76	168	244	666	152	426	96	317
110	368	297	872	114	297	89	201	134	312	312	476	210	651	194	755
66	110	230	503	34	72	178	269	84	84	284	396	184	184	416	806
203	430	68	145	36	71	253	354	166	324	158	251	139	285	437	1062
114	229	89	168	44	64	58	72	117	249	32	42	163	257	64	165
9	23	175	396	11	22	114	311	7	19	232	693	29	89	124	385
202	298	172	231	142	148	90	121	97	194	169	283	361	642	206	571
33	47	52	117	32	66	19	35	44	102	97	180	70	136	99	214
89	131	346	656	57	57	251	251	64	115	221	306	177	267	253	436
92	243	151	460	256	666	189	402	109	233	3 5	511	211	590	217	580
89	195	194	703	176	529	105	303	173	474	218	686	222	589	72	183
34	48	64	107	38	60	30	39	43	61	55	84	50	83	50	66
190	260	29	71	211	293	24	53	193	269	36	55	256	348	16	25
69	296	22	95	59	222	125	436	75	207	62	184	78	224	64	196
101	157	367	706	336	463	110	160	158	289	166	255	158	245	64	93
41	85	261	715	71	214	256	670	87	238	215	504	67	182	462	1209
273	433	128	239	653	1090	82	195	65	102	88	222	119	214	42	100
93	227	124	335	159	354	292	775	238	608	64	106	47	83	88	234
95	208	37	103	133	256	53	109	274	467	61	121	148	244	15	33
146	326	107	256	281	573	170	430	410	1054	118	310	169	364	59	169
67	89	189	269	458	504	112	137	132	132	189	189	199	336	114	172
57	63	202	219	75	87	461	478	344	386	148	150	51	54	92	100
159	392	197	356	115	187	154	280	195	484	275	572	153	298	212	423
49	91	211	273	321	687	83	176	167	342	130	248	211	431	352	743
174	200	189	189	184	184	190	190	203	203	174	233	210	308	126	156
41	154	192	569	66	167	128	315	107	275	88	248	45	123	31	93
155	316	227	482	199	545	158	355	90	176	182	525	208	560	241	537
86	153	75	162	174	337	248	408	64	141	79	197	166	327	245	557
69	144	302	448	334	286	436	678	57	103	94	177	94	200	141	263
63	209	49	118	52	123	99	256	92	277	72	202	149	470	107	301
137	147	120	235	159	321	258	508	223	472	189	401	58	98	296	407

MONTH OF JANUARY, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	29.70	30.70	38.54	32.25	32.80	62	17	29.2	15.8	11	34	20	55	7	22
Fort Columbus	28.93	30.54	36.38	33.74	32.40	54	16	21.6	16.4	0	0	19	34	0	0
West Point	25.74	27.25	33.67	28.48	28.90	52	8	23.1	20.9	10	26	1	1	1	1
Watervliet Arsenal	21.80	25.40	31.20	25.50	25.98	48	2	22.0	24.0	..	..	..	..	..	..
Alleghany Arsenal	26.87	29.35	34.54	28.93	29.92	58	0	28.1	29.9	7	11	10	11	20	20
Fort McHenry	27.30	29.20	36.21	30.15	30.71	54	10	23.3	20.7	0	0	25	27	4	15
Fort Monroe	38.45	40.48	46.83	43.00	42.19	65	15	22.8	27.2	4	10	20	48	8	21
Fort Moultrie	47.19	52.55	58.03	53.06	52.71	70	21	17.3	31.7	28	31	24	35	5	7
Fort Brooke	58.35	64.35	73.84	63.61	65.04	88	32	23.0	33.0	14	49	14	48	19	32
Fort Barrancas	46.45	49.80	56.06	50.06	50.59	69	18	18.4	32.6	34	65	22	35	16	27
Mount Vernon Arsenal	41.80	46.00	56.00	45.80	47.40	73	21	25.6	26.4	8	22	25	25	2	2
New Orleans	52.55	51.04	61.19	54.61	54.85	78	27	23.2	27.8	19	19	29	48	3	3
Baton Rouge	43.29	48.25	57.35	50.45	49.84	76	20	26.2	29.8	34	101	7	11	41	64
Fort Washita	28.74	33.26	45.83	35.48	35.83	74	10	38.2	25.8	45	68	4	7	8	17
Fort Smith	28.06	31.35	44.12	34.19	34.43	72	10	37.6	24.4	20	27	9	9	29	29
Fort Gibson	28.13	30.97	42.44	32.64	33.55	70	6	36.4	27.6	10	14	23	30	5	5
Fort Scott	17.32	22.29	29.25	21.93	22.70	57	— 4	34.3	26.7	15	40	13	36	12	19
St. Louis Arsenal	19.23	25.05	30.25	24.04	24.64	58	— 2	33.4	26.6	24	43	10	15	15	15
Fort Mackinac	10.39	12.12	16.32	13.72	13.14	33	—16	19.8	29.2	3	6	21	41	3	10
Fort Brady	7.54	11.41	18.67	12.00	12.40	34	—14	21.6	26.4	3	4	12	19	24	47
Fort Snelling	— 2.00	0.54	12.96	5.45	4.24	34	—24	29.8	28.2	23	43	16	16	19	25
Fort Leavenworth	14.00	15.38	24.77	18.51	18.16	46	—10	27.8	28.2	1	2	2	2	0	0
Matamoros	54.25	57.16	63.48	59.16	58.51	80	31	21.5	27.5	49	95	9	10	14	19

MONTH OF JANUARY, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	4	9	21	21	60	14	48	40	81	6.09	5.41	5.64	6.35	5.87	18	13	3	4	5.04	
11	23	0	0	30	51	0	0	64	187	4.13	4.51	4.77	5.41	4.70	15	16	7	4	4.62	
9	20	13	24	23	28	22	43	45	127	4.16	3.90	4.58	5.70	4.58	14	17	4	4	4.01	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	14	17	3	5	1.84	
5	8	9	14	9	19	32	90	32	114	3.51	3.58	3.67	3.48	3.56	12	19	9	1	3.01	
12	30	0	0	18	18	37	86	28	68	3.30	4.90	3.17	4.29	3.91	13	18	4	4	2.92	
10	26	4	8	40	89	22	81	16	42	5.12	5.32	4.80	5.58	5.20	17	14	10	2	2.75	
2	2	18	26	7	9	28	28	12	12	3.87	4.68	5.32	6.29	5.04	15	16	8	0	1.69	
27	48	20	25	13	35	0	0	17	43	5.42	5.06	6.06	7.12	5.91	16	15	3	0	2.24	
12	36	4	10	10	23	11	17	9	26	4.38	4.67	4.83	5.45	4.83	16	15	9	0	4.78	
23	23	6	6	22	44	1	6	27	70	3.50	3.66	4.13	4.90	4.04	11	20	13	0	6.82	
17	29	14	14	15	31	3	3	24	47	4.72	4.32	5.18	5.14	4.84	15	16	7	0	7.71	Temp. inaccurate.
10	22	14	16	4	13	7	23	4	6	5.67	5.67	4.20	4.64	5.05	16	15	12	0	11.60	
5	11	32	89	5	15	21	31	4	9	5.06	6.25	7.58	7.09	6.49	24	7	0	2	1.28	
0	0	16	16	11	11	33	33	6	9	4.61	5.00	6.22	7.09	5.73	20	11	2	1	0.95	
17	18	34	47	17	17	4	4	14	24	5.96	6.09	5.70	7.87	6.40	22	9	0	2	0.10	
15	27	12	36	22	52	20	52	15	44	2.80	4.51	6.00	7.28	5.14	19	12	0	6	1.25	
13	18	20	23	18	27	10	15	14	41	4.01	5.09	5.20	4.27	4.64	16	15	3	0	1.79	
5	15	8	23	16	57	29	91	39	116	2.03	2.38	2.63	3.35	2.59	14	17	3	5	1.28	
18	21	3	3	35	121	19	84	10	37	5.53	7.00	5.06	4.12	4.42	18	13	0	7	1.50	
33	37	9	15	9	10	9	12	6	14	2.87	2.87	3.45	3.48	3.16	8	23	0	2	0.29	
7	15	5	15	33	64	15	19	61	117	6.32	5.90	5.32	6.00	5.88	19	12	1	3	0.69	
4	11	24	33	10	14	5	8	9	11	4.22	3.41	4.38	5.35	4.34	12	18	2	1	....	

MONTH OF FEBRUARY, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	28.96	30.17	37.40	32.53	32.26	47	14	14.7	18.3	15	46	24	67	11	30
Fort Columbus	28.35	29.53	35.17	33.32	31.60	50	12	18.4	19.6	5	13	26	53	11	33
West Point	23.71	25.78	31.64	27.65	28.20	48	1	19.8	27.2	15	40	1	2	3	7
Watervliet Arsenal	15.00	19.82	28.07	24.00	21.72	50	—14	28.3	35.7	..	..	..	..	..	..
Alleghany Arsenal	28.53	31.75	37.53	32.67	32.62	55	7	22.4	25.6	8	8	20	21	16	14
Fort McHenry	28.80	31.50	37.10	31.70	32.52	52	18	19.5	14.5	15	23	39	46	4	10
Fort Monroe	39.14	41.85	47.14	42.57	42.65	62	26	19.3	16.7	2	4	15	23	22	51
Fort Moultrie	49.78	55.75	56.39	53.35	53.82	70	36	16.2	17.8	5	9	3	5	7	13
Fort Brooke	53.37	60.75	71.57	58.25	60.98	89	35	28.0	26.0	17	40	14	22	14	27
Fort Barrancas	46.71	53.73	60.61	55.04	54.02	74	30	20.0	24.0	23	41	8	10	10	13
Mount Vernon Arsenal	45.60	50.90	68.65	54.95	55.02	78	26	23.0	29.0	0	0	10	17	2	2
New Orleans Barracks	52.39	56.72	62.89	57.20	57.30	79	35	21.7	22.3	25	39	11	13	5	5
Fort Washita	37.71	42.96	55.60	46.10	45.60	76	16	30.4	29.6	30	65	2	3	5	9
Fort Smith	35.07	38.35	54.14	43.14	40.17	78	10	37.8	30.2	17	21	4	4	24	24
Fort Gibson	36.48	41.01	51.16	42.26	42.73	77	10	34.3	32.7	7	11	15	19	5	5
Fort Scott	28.10	33.03	40.00	32.17	33.32	66	6	32.7	27.3	25	61	10	22	6	16
St. Louis Arsenal	29.03	33.27	38.14	33.21	33.41	58	0	24.6	33.4	14	14	18	18	15	15
Fort Mackinac	12.53	14.67	19.46	15.60	15.56	32	— 1	16.4	16.6	10	16	36	95	17	30
Fort Brady	6.55	12.86	23.17	10.44	13.26	46	—16	32.7	29.3	9	20	14	38	30	69
Fort Snelling	13.35	18.42	27.21	19.81	19.70	41	—16	21.3	25.7	10	34	39	71	28	40
Fort Leavenworth	27.00	29.42	37.53	31.10	31.26	66	5	34.7	26.2	1	2	13	21	0	0
Matamoros	60.10	63.50	70.10	62.85	64.14	86	42	21.8	22.2	31	68	16	43	39	66

MONTH OF FEBRUARY, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	5	3	13	17	43	9	38	31	122	4.06	3.89	3.96	4.60	4.12	10	18	2	10	7.05	
5	20	0	0	17	30	1	3	47	136	3.38	3.24	3.90	3.60	4.54	10	18	6	9	5.74	
4	13	5	9	11	15	28	56	45	85	3.30	2.51	2.65	3.31	2.94	7	21	1	7	6.22	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	14	14	4	8	1.38	
3	3	5	5	8	11	26	40	26	102	2.30	2.57	2.42	3.57	2.71	5	23	8	6	2.86	
10	21	0	0	18	18	9	51	17	69	3.20	2.21	2.22	3.15	2.69	8	20	10	4	3.42	
14	38	4	10	13	23	19	60	23	57	5.14	4.71	4.21	5.50	4.89	15	13	11	0	2.65	
7	11	40	56	18	19	29	48	3	3	6.19	6.14	6.09	5.18	5.90	18	13	2	0	0.20	
9	14	39	63	6	14	3	7	10	37	5.67	5.82	6.00	5.96	5.86	17	11	4	0	3.25	
25	51	12	23	9	12	5	7	13	32	5.90	7.18	6.48	6.44	6.50	20	8	6	0	8.98	
24	27	1	2	42	52	2	2	31	69	3.00	3.20	3.75	4.33	3.57	10	18	8	0	7.70	
5	5	36	37	21	23	2	2	7	7	1.96	4.27	4.59	5.21	4.00	11	17	5	0	3.77	
11	23	29	75	7	13	22	42	6	13	6.57	6.92	7.57	7.06	7.03	20	8	4	2	4.10	
0	0	11	11	2	2	46	46	8	10	5.67	5.64	5.32	6.24	5.71	17	11	8	0	1.73	
24	27	21	25	17	20	7	8	16	18	6.21	6.14	5.12	7.82	6.32	18	10	4	1	2.12	
6	11	15	36	21	52	13	42	16	34	3.78	3.96	3.60	5.57	4.22	11	17	3	5	1.24	
10	10	10	10	13	14	20	36	12	14	4.07	4.23	4.23	5.03	4.39	16	12	4	3	3.09	
6	8	0	0	8	14	10	22	25	61	2.10	2.64	3.10	3.64	2.87	6	22	1	7	0.81	
11	22	4	4	7	13	11	37	26	83	5.79	7.03	6.27	6.72	6.45	14	14	1	4	0.80	
14	24	2	3	8	12	5	13	6	12	1.25	1.57	2.28	3.17	2.06	8	20	0	2	0.11	
9	18	2	3	24	38	6	11	57	92	5.21	4.14	3.85	4.88	4.52	14	14	2	2	1.30	
5	11	17	41	0	0	3	6	1	3	3.10	4.03	3.82	5.00	3.98	11	17	4	0	....	

MONTH OF MARCH, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	33.22	35.32	41.78	36.54	36.71	62	22	25.3	14.7	12	56	15	49	14	37
Fort Columbus	31.19	34.74	41.03	37.09	36.01	56	22	20.0	14.0	4	4	21	44	0	0
West Point	27.93	31.80	37.67	32.38	32.45	60	18	27.5	14.5	17	46	1	2	2	3
Watervliet Arsenal	20.68	27.13	38.22	28.06	28.52	50	—20	21.5	48.5	..	..	..	..	..	..
Alleghany Arsenal	31.41	36.22	44.09	37.35	37.27	72	20	34.7	17.3	22	48	16	33	20	22
Fort McHenry	32.20	35.23	43.29	37.20	38.00	64	20	26.0	18.0	6	8	36	63	4	10
Fort Monroe	41.13	43.41	50.87	44.64	45.01	63	31	18.0	14.0	2	5	23	52	14	26
Fort Moultrie	50.67	54.09	60.09	56.45	54.42	74	37	19.6	17.4	2	4	10	22	2	4
Fort Brooke	58.83	65.83	76.23	60.29	65.29	88	42	22.7	23.3	14	48	29	29	17	37
Fort Barrancas	51.32	59.12	63.16	57.16	57.69	72	38	14.3	19.7	26	29	5	6	32	47
Mount Vernon Arsenal	47.96	57.29	69.19	53.93	57.09	78	32	20.9	25.1	2	6	13	18	1	1
New Orleans	54.70	63.77	66.59	62.52	61.90	80	41	18.1	20.9	24	44	9	12	13	13
Fort Washita	40.54	46.64	59.41	50.03	49.16	80	24	30.8	25.2	43	79	5	13	8	15
Fort Smith	38.93	45.61	56.77	50.38	47.92	78	22	30.1	25.9	25	32	5	5	34	34
Fort Gibson	40.39	45.07	55.21	47.96	47.16	78	22	30.8	25.2	4	12	33	42	10	10
Fort Scott	30.12	37.67	47.00	33.90	37.17	77	6	39.8	31.2	30	84	15	36	6	16
Jefferson Barracks	32.45	37.22	44.41	36.19	37.57	67	10	29.4	27.6	22	63	7	17	7	17
St. Louis Arsenal	30.20	38.00	46.22	37.80	38.06	80	10	42.0	28.0	23	26	18	18	16	16
Fort Mackinac	15.48	19.20	24.51	19.23	19.60	34	3	14.4	16.6	13	31	19	63	15	59
Fort Brady	9.64	22.00	29.51	18.32	19.87	40	—14	20.1	33.9	8	24	7	22	29	77
Fort Snelling	15.26	24.32	33.41	22.54	23.88	74	—12	50.1	35.9	17	26	26	55	18	32
Fort Leavenworth	28.96	34.00	40.61	36.24	34.95	76	4	41.1	30.9	1	3	7	12	0	0
Matamoros	62.48	67.70	74.87	65.58	67.66	88	46	20.3	21.7	27	67	4	14	33	76

MONTH OF MARCH, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	8	6	16	10	24	12	71	51	182	5.67	5.32	4.74	6.35	5.52	19	12	9	0	5.04	
16	26	2	2	9	14	2	3	70	222	4.58	4.64	5.35	6.03	5.15	19	12	11	3	8.48	
5	6	5	7	11	20	31	70	52	109	2.83	2.93	3.93	5.22	3.72	8	23	7	2	3.49	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	13	3	6	2.50	
3	4	7	11	16	34	18	40	22	75	3.60	3.41	3.45	4.19	3.66	11	20	8	4	3.47	
7	7	2	5	24	43	15	53	30	104	3.12	3.11	3.70	5.25	3.79	13	18	11	1	2.38	
9	22	3	9	28	44	26	53	27	80	4.61	4.83	4.54	6.00	4.99	16	15	10	3	5.05	
12	26	8	13	20	44	53	91	17	31	7.03	7.58	7.83	3.67	6.52	23	8	8	0	7.66	
12	28	29	75	7	16	8	24	8	27	6.29	5.96	5.78	7.26	6.32	22	9	6	0	4.38	
7	13	21	36	9	15	10	18	9	17	7.29	7.03	7.23	7.41	7.24	22	9	9	0	10.95	
21	32	11	21	29	38	3	3	44	80	3.51	4.48	5.41	5.70	4.77	15	16	7	0	6.45	
4	4	55	63	14	18	2	2	3	3	2.71	5.26	1.77	6.27	4.00	15	16	2	0	3.40	
3	7	48	142	1	2	7	11	9	21	4.48	5.25	6.09	6.03	5.46	17	14	8	1	3.61	
1	1	15	15	14	17	27	32	3	3	4.61	4.80	4.51	5.51	4.85	15	16	8	0	5.56	
28	35	29	50	12	14	0	0	8	8	5.67	5.29	5.22	7.32	5.87	18	13	4	2	1.42	
10	24	22	68	16	51	15	32	10	18	4.51	4.48	4.54	6.70	5.05	18	13	2	6	1.10	
13	23	12	21	7	14	15	28	34	91	4.51	4.83	5.35	6.51	5.30	17	14	5	3	3.12	
14	14	19	21	7	7	13	28	14	20	4.18	5.27	6.05	5.29	5.19	20	11	5	1	4.34	
6	24	9	29	15	40	21	73	26	76	3.77	4.06	3.09	5.03	3.98	11	20	5	5	1.16	
13	46	3	4	6	14	27	81	31	118	6.25	7.61	6.61	6.67	6.78	20	11	5	1	1.00	
28	37	7	15	6	14	15	47	7	12	2.35	2.80	2.19	2.67	2.50	14	17	1	5	0.44	
3	5	4	14	43	79	9	14	57	95	5.64	5.77	4.96	5.45	5.45	21	10	1	6	0.48	
19	60	34	85	2	4	0	0	5	18	4.64	5.00	5.51	7.12	5.56	19	12	3	0	....	

MONTH OF APRIL, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	40.40	43.96	53.16	44.46	45.50	72	26	26.5	19.5	15	52	12	39	1	2
Fort Columbus	42.46	47.30	56.33	51.93	49.50	76	26	26.5	23.5	3	8	16	26	3	3
West Point	37.70	45.03	53.33	44.71	45.19	78	14	32.8	31.2	6	15	5	9	7	13
Watervliet Arsenal	36.87	43.07	50.40	40.97	42.83	76	4	33.2	38.8	..	..	..	..	..	..
Alleghany Arsenal	40.46	49.90	61.20	49.70	50.31	81	24	30.7	26.3	18	31	3	4	12	13
Fort McHenry	45.13	59.50	64.13	54.22	55.74	84	26	28.3	29.7	2	14	10	32	1	3
Fort Monroe	49.73	53.16	62.13	54.63	54.91	80	36	25.1	18.9	2	2	15	54	17	55
Fort Moultrie	63.30	66.93	70.73	65.53	66.62	79	52	12.4	14.6	10	16	7	7	4	8
Fort Brooke	65.23	72.90	82.80	70.40	72.83	91	58	18.2	14.8	2	5	7	19	37	91
Fort Barrancas	65.20	71.30	73.16	67.36	69.28	80	48	10.7	21.3	0	0	8	10	22	29
Mount Vernon Arsenal	67.10	68.96	76.80	67.10	69.99	89	40	19.0	30.0	16	24	14	20	1	1
New Orleans	65.31	73.83	76.82	69.97	71.48	84	52	12.5	19.5	1	1	28	28	7	7
Fort Washita	58.26	66.00	78.86	67.76	67.72	92	45	24.3	22.7	24	31	15	19	8	10
Fort Smith	55.86	64.86	78.20	63.93	65.71	88	42	22.3	23.7	10	10	9	9	53	53
Fort Gibson	57.97	65.10	74.99	65.99	66.01	83	44	17.0	22.0	1	1	11	11	18	18
Fort Scott	47.63	58.86	69.53	55.50	57.88	82	36	24.1	21.9	25	54	21	40	12	20
St. Louis Arsenal	44.25	57.26	68.09	57.02	56.65	84	30	27.3	26.7	21	26	19	19	18	18
Fort Mackinac	28.77	34.40	38.38	31.73	33.32	52	16	18.7	17.3	21	47	13	43	15	46
Fort Brady	26.93	36.93	43.53	32.73	35.03	66	— 4	31.0	39.0	10	19	4	6	25	67
Fort Snelling	35.50	47.96	57.70	43.56	46.18	82	19	35.8	27.2	25	79	28	67	21	36
Fort Leavenworth	48.63	57.20	67.76	58.00	57.90	86	32	28.1	25.9	2	3	2	3	1	2
Matamoros	73.23	78.10	82.76	75.06	77.29	88	66	10.7	11.3	8	17	4	9	81	196

MONTH OF APRIL, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	13	11	29	26	76	17	80	33	112	7.50	6.33	5.23	7.10	6.54	21	9	4	0	0.71	
14	30	5	8	41	99	2	6	36	78	5.48	5.45	6.48	6.22	5.40	20	10	10	0	1.53	
13	36	16	31	13	30	26	42	34	109	4.86	4.73	4.90	4.93	4.85	17	13	4	0	0.79	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	24	6	4	2	2.23	
5	8	6	7	22	53	33	77	21	58	4.86	5.93	5.83	6.73	5.83	18	12	9	0	2.55	
31	54	8	13	36	83	7	30	25	68	5.28	5.15	5.10	6.17	5.42	20	10	5	0	0.41	Temp. in error.
22	40	6	7	37	72	7	30	14	38	6.10	6.13	5.53	6.73	6.12	22	8	6	0	1.86	
9	18	14	24	21	46	31	52	24	48	9.00	9.00	8.66	9.00	8.90	27	4	3	0	1.52	
0	0	24	46	20	37	25	69	5	13	5.30	4.70	5.13	6.56	5.42	21	9	2	0	1.61	
8	9	22	38	33	72	21	31	4	6	7.50	7.43	6.96	7.46	7.34	26	4	4	0	5.85	
17	17	13	19	30	45	6	6	23	32	3.66	4.33	4.86	7.00	4.98	14	16	5	0	3.77	
9	9	34	34	10	10	18	19	13	13	2.93	4.62	3.26	7.40	4.55	13	17	7	0	4.63	
2	5	58	105	6	6	4	6	3	5	5.46	6.26	7.10	8.30	6.81	21	9	4	0	1.60	
0	0	22	23	7	7	19	19	0	0	4.53	5.73	6.73	6.73	5.43	17	13	6	0	3.22	
21	21	47	62	12	17	2	2	8	9	6.06	6.23	6.80	6.63	6.43	19	11	6	0	3.10	
5	9	38	114	9	29	9	13	1	2	3.30	5.16	5.40	5.23	4.77	14	16	7	0	4.22	
11	11	11	11	15	17	13	16	12	15	5.17	6.17	6.18	5.19	5.68	20	10	9	0	8.25	
2	3	5	5	15	47	18	56	31	87	3.09	3.13	3.50	5.76	3.87	12	18	6	2	1.48	
10	28	4	11	10	27	25	77	32	123	4.90	6.46	7.10	6.16	6.15	20	10	7	1	2.00	
17	27	11	27	3	8	5	10	10	29	2.56	3.03	2.54	2.56	2.67	10	20	2	1	0.45	
12	22	6	18	60	109	8	11	29	45	6.30	5.56	6.13	6.16	6.03	20	10	8	0	2.79	
11	31	15	48	1	5	0	0	0	0	4.33	4.66	7.06	4.73	5.19	19	11	6	0	....	

MONTH OF MAY, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	48.96	55.58	61.41	53.93	54.97	77	37	22.0	18.0	7	19	34	105	19	44
Fort Columbus	53.35	59.64	67.54	57.53	59.51	80	40	20.5	19.5	6	7	55	112	1	1
West Point	50.77	57.32	67.54	57.90	58.38	84	36	25.6	22.4	17	33	20	55	12	17
Watervliet Arsenal	52.16	58.70	68.16	58.13	59.29	84	34	24.7	25.3	..	..	..	..	..	..
Alleghany Arsenal	50.83	62.46	74.87	65.30	62.36	87	34	24.6	28.4	19	23	17	31	20	30
Fort McHenry	56.12	64.15	74.22	62.26	64.19	89	46	24.8	18.2	4	5	50	143	15	17
Fort Monroe	58.13	61.42	67.13	62.29	62.24	86	51	23.8	11.2	2	3	50	144	33	95
Fort Moultrie	66.77	69.51	73.22	67.80	69.32	88	58	18.7	11.3	12	25	21	44	10	22
Fort Brooke	66.68	78.52	80.16	72.12	74.37	92	52	17.6	22.4	0	0	10	29	7	18
Fort Barrancas	65.74	74.12	76.96	70.93	71.82	86	56	14.2	15.8	2	2	0	0	22	29
Mount Vernon Arsenal	61.80	73.09	78.38	68.87	70.53	86	52	15.5	18.5	11	25	31	31	4	4
New Orleans	68.50	79.50	84.40	73.85	76.56	87	62	10.4	14.6	17	19	11	11	5	5
Fort Washita	59.00	60.35	80.35	67.90	66.90	92	45	25.1	21.9	31	52	12	22	24	30
Fort Smith	54.29	66.38	76.51	65.87	65.76	88	44	22.2	21.8	18	24	0	0	60	60
Fort Gibson	58.27	65.35	73.47	65.01	65.52	86	44	20.5	21.5	11	19	14	16	13	20
Fort Scott	52.90	63.64	70.16	59.58	61.57	84	34	22.4	27.6	22	44	13	22	9	13
St. Louis Arsenal	52.30	60.18	72.20	64.10	62.19	90	38	27.8	24.2	21	32	16	25	8	9
Fort Mackinac	41.25	45.80	50.09	45.67	45.70	66	29	20.3	16.7	15	45	35	99	21	96
Fort Brady	40.64	52.19	65.29	47.38	51.37	86	26	34.6	25.4	8	18	11	28	46	100
Fort Snelling	44.12	53.80	59.87	52.77	52.64	81	30	28.4	22.6	15	33	46	101	23	47
Fort Leavenworth	52.21	59.17	67.20	59.23	59.45	82	36	22.5	23.5	0	0	4	6	2	8
Matamoros	78.41	83.70	87.96	79.45	82.38	96	70	13.6	12.4	8	18	7	17	99	211
Monterey	52.40	55.50	59.15	54.50	55.39	65	43	9.6	12.4	4	7	5	9	12	23

MONTH OF MAY, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	24	16	37	26	64	5	16	6	17	6.09	5.19	4.38	5.61	6.31	16	15	6	0	1.63	
17	21	2	2	34	44	0	0	9	14	4.58	5.21	5.27	4.39	4.86	17	14	9	0	2.18	
23	30	14	23	10	12	13	17	15	27	4.38	4.16	3.58	5.32	4.36	15	16	7	0	2.70	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	20	11	8	0	2.45	
9	26	12	13	17	34	16	17	14	26	4.38	5.41	5.80	5.32	5.22	18	13	16	0	3.64	
40	46	0	0	9	12	0	0	6	6	4.90	4.16	4.11	5.23	4.60	15	16	7	0	1.19	
11	21	6	11	8	16	8	19	6	11	3.96	4.10	4,32	5.00	4.34	13	18	10	0	3.62	
11	23	21	40	12	24	25	50	12	19	8.38	6.64	6.45	8.06	7.38	24	7	8	0	9.45	
23	35	11	28	22	64	36	91	8	14	5.68	5.00	4.80	6.00	5.37	20	11	2	0	1.00	
17	22	40	55	21	44	12	20	2	2	7.25	8.03	7.27	8.45	7.77	23	8	8	0	8.90	
17	17	10	10	15	15	5	14	31	43	6.00	6.45	5.61	6.90	6.24	24	7	6	0	3.94	
8	8	39	39	7	7	19	20	18	19	7.39	6.50	3.44	8.52	6.46	24	7	6	0	4.80	
12	20	34	72	5	9	6	9	0	0	5.64	5.38	7.22	7.09	6.33	23	8	8	0	3.05	
4	4	11	11	2	3	24	25	5	7	5.70	5.70	5.61	6.67	5.92	17	14	9	0	3.80	
40	46	23	23	2	2	3	6	18	19	5.00	5.54	6.67	7.83	6.26	19	12	5	0	1.35	
7	9	37	81	7	12	14	27	15	29	3.90	4.70	5.90	6.38	5.22	17	14	9	0	3.12	
17	28	12	12	8	17	24	30	18	20	5.03	6.05	6.23	5.12	5.60	22	9	8	0	5.95	
14	37	2	8	10	28	18	57	9	41	3.74	4.44	3.80	4.08	4.01	13	18	7	2	4.03	
11	37	6	15	3	11	30	79	9	35	8.38	8.00	8.09	6.00	7.61	20	11	6	1	3.00	
13	26	17	48	7	17	2	3	1	2	1.77	2.03	2.16	2.51	2.11	8	23	14	0	4.96	
16	25	16	29	29	47	15	18	42	67	6.50	5.15	5.25	5.79	5.67	19	12	10	0	7.18	
4	12	6	18	0	0	0	0	0	0	8.93	8.29	7.90	7.12	8.06	26	5	4	0	....	
5	15	4	10	35	87	11	37	46	119	1.70	3.20	6.00	4.20	3.78	11	20	2	0	0.01	

MONTH OF JUNE, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	58.80	64.40	71.73	64.43	64.84	90	47	25.2	17.8	12	32	14	38	6	14
Fort Columbus	64.46	70.80	77.70	70.40	70.84	94	56	23.2	14.8	0	0	15	20	0	0
West Point	58.53	63.80	72.66	64.33	64.83	88	51	22.2	13.8	16	30	0	0	3	3
Watervliet Arsenal	61.53	67.43	73.96	64.67	66.90	90	46.	23.1	20.9	..	..	..	..	..	..
Alleghany Arsenal	58.43	68.00	76.30	64.16	66.97	89	44	22.0	23.0	18	18	16	22	2	5
Fort McHenry	65.20	66.29	78.26	70.20	69.99	97	52	27.0	18.0	0	0	10	19	4	4
Fort Monroe	68.33	71.96	77.36	71.33	72.24	86	60	13.8	12.2	4	10	14	35	28	67
Fort Moultrie	77.66	80.26	83.63	78.50	80.01	89	70	9.0	10.0	24	53	29	75	13	33
Fort Brooke	73.43	84.70	88.63	77.60	81.09	96	66	14.9	15.1	2	2	9	15	27	46
Mount Vernon Arsenal.	69.06	79.66	83.63	78.26	77.90	94	62	16.1	15.9	7	8	26	26	6	6
New Orleans	70.90.	79.93	85.21	78.96	78.75	94	71	15.2	7.8	5	5	5	5	7	7
Baton Rouge	73.07	81.60	88.00	78.30	80.08	96	70	15.9	10.1	6	9	12	18	52	83
Fort Washita	68.40	77.30	84.86	74.80	76.34	92	62	15.7	14.3	20	27	9	13	16	17
Fort Smith	68.40	76.33	83.33	74.80	75.71	92	60	16.3	15.7	9	9	0	0	51	51
Fort Gibson	61.81	74.05	81.13	74.00	72.75	89	61	16.2	11.8	9	9	8	8	10	11
Fort Scott	61.60	72.76	80.22	69.16	70.93	88	50	17.1	20.9	11	22	11	23	18	28
Jefferson Barracks	62.40	69.80	76.80	65.83	69.60	89	54	19.4	15.6	12	22	5	9	19	38
St. Louis Arsenal.	64.06	73.12	82.23	71.17	72.64	96	50	23.4	22.6	4	7	14	20	12	12
Fort Mackinac	49.66	52.10	58.50	52.23	53.12	74	36	20.9	17.1	11	22	6	20	12	37
Fort Brady	43.76	58.23	67.06	53.56	55.65	86	36	30.3	19.7	1	2	3	4	25	48
Fort Snelling	57.80	65.90	72.96	64.30	65.24	86	43	20.8	22.2	14	38	28	38	15	15
Fort Leavenworth	61.70	70.70	78.33	68.93	69.91	88	54	18.1	15.9	9	9	16	18	4	4
Matamoros	81.70	85.63	89.06	82.76	84.79	94	79	9.2	5.8	0	0	11	24	107	215
Vera Cruz	77.83	81.55	83.36	81.56	81.07	84	74	2.9	7.1	22	35	7	18	23	59
Monterey	52.30	57.70	65.30	56.30	57.90	74	45	16.1	12.9	4	9	16	17	0	0
Los Angeles	69.60	71.90	77.50	73.20	73.05	81	68	8.0	5.0	..	..	..	..	..	..

MONTH OF JUNE, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	13	12	24	28	68	11	34	31	104	5.46	5.43	5.96	6.46	5.82	19	11	11	0	8.37	
36	56	1	2	23	42	1	1	34	50	5.46	5.26	5.86	6.10	5.67	16	14	9	0	6.78	
8	13	29	73	16	21	29	32	19	49	4.80	4.33	4.46	6.00	4.89	14	16	10	0	2.27	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	21	9	9	0	3.82	
0	0	5	13	20	42	26	57	33	62	2.83	4.23	4.80	6.33	4.50	14	16	10	0	5.32	
31	37	6	19	29	64	16	34	24	40	4.12	4.17	3.18	6.50	4.49	17	13	9	0	3.36	
17	42	6	17	37	90	8	18	6	17	4.73	5.23	4.83	5.43	5.05	17	13	12	0	4.07	
21	48	21	55	4	10	4	12	4	12	8.33	9.00	9.33	9.33	8.99	22	8	4	0	5.50	
21	41	13	22	3	8	36	36	19	30	5.16	4.00	3.03	4.06	4.06	11	19	10	0	4.68	
18	18	12	12	28	31	8	8	15	15	5.60	4.10	5.53	5.66	5.22	18	12	10	0	4.05	
12	12	30	30	24	24	18	18	19	19	6.47	5.29	3.75	6.32	5.45	16	14	7	0	3.43	
7	14	10	15	5	11	17	31	6	12	7.57	5.93	5.83	6.63	6.44	20	10	5	0	2.30	
5	5	58	107	7	7	7	7	0	0	4.10	5.30	5.96	7.50	5.71	19	11	10	0	3.09	
0	0	34	35	5	5	21	21	0	0	4.60	5.13	5.43	6.10	5.31	14	16	8	0	5.95	
16	21	56	62	14	14	4	4	3	3	5.00	6.07	5.29	7.21	5.89	19	11	4	0	3.88	
23	29	22	50	13	23	13	18	9	17	3.60	4.40	5.00	5.46	4.61	12	18	9	0	4.63	
12	27	9	14	12	21	27	37	26	58	4.13	4.93	4.50	6.01	4.89	15	15	14	0	4.10	
25	28	13	20	18	32	23	58	11	23	5.25	7.03	6.23	5.17	5.92	20	10	11	0	11.47	
16	44	5	5	6	17	24	48	40	123	4.01	4.43	4.66	4.56	4.41	12	18	13	0	2.97	
12	36	8	15	8	19	34	84	29	101	6.86	7.80	8.43	6.63	7.43	20	10	9	0	3.35	
47	69	4	6	6	12	1	3	5	14	3.56	3.36	3.53	2.43	3.22	15	15	7	0	2.66	
14	14	53	72	8	12	4	4	12	13	5.60	5.46	5.50	6.14	5.67	19	11	5	0	5.15	
2	6	0	0	0	0	0	0	0	0	7.96	7.40	6.96	7.96	7.57	25	5	9	0	....	
31	73	12	22	2	4	5	7	1	1	5.13	5.70	7.50	6.10	6.11	24	6	12	0	4.15	
9	10	2	2	15	27	2	5	70	118	4.00	6.00	8.00	6.00	6.00	18	12	0	0	0.00	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	1	0	0.01	First 4 days omitted.

MONTH OF JULY, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Hamilton	68.37	74.26	81.51	74.83	74.74	92	62	17.3	12.7	4	11	23	62	0	0
Fort Columbus	70.06	78.84	81.55	72.00	75.61	92	58	16.4	17.6	7	7	19	21	0	0
West Point	71.09	75.90	80.41	74.00	75.35	90	58	14.6	17.4	9	12	14	19	0	0
Watervliet Arsenal	67.97	74.45	82.13	71.26	73.95	96	54	22.1	19.9	..	..	..	..	..	..
Alleghany Arsenal	63.83	74.16	82.29	69.64	72.48	93	49	20.5	23.5	30	35	15	22	15	15
Fort McHenry	70.70	77.28	87.19	75.30	77.62	98	58	20.4	19.6	3	10	25	52	13	13
Fort Monroe	71.70	75.26	82.54	75.16	76.16	94	62	17.8	14.2	0	0	17	50	30	79
Fort Moultrie	79.58	81.71	83.41	79.58	81.07	89	69	7.9	12.1	10	24	16	37	12	29
Fort Brooke	74.69	84.22	85.70	78.12	80.68	93	71	12.3	9.7	0	0	1	3	28	54
Mount Vernon Arsenal	70.90	78.03	86.48	72.90	77.08	86	68	8.9	9.1	2	5	14	14	10	10
New Orleans	75.79	84.58	88.46	78.44	81.82	90	71	8.2	10.8	1	1	1	2	4	4
Baton Rouge	76.04	79.08	86.08	76.07	80.05	94	71	14.0	9.0	9	17	6	12	17	24
Fort Washita	71.77	78.70	89.00	78.41	79.47	98	62	18.5	17.5	18	28	17	19	24	24
Fort Smith	72.38	77.96	84.03	77.06	77.86	94	62	16.1	15.9	8	8	1	1	60	60
Fort Gibson	71.56	77.51	83.65	78.96	77.92	91	57	13.1	20.9	0	0	8	13	2	2
Fort Scott	67.74	78.03	85.25	73.22	76.06	93	47	17.0	29.0	9	10	23	30	17	21
Jefferson Barracks	69.09	79.67	86.22	73.54	77.41	94	53	16.6	24.4	5	9	15	25	16	24
St. Louis Arsenal	68.10	79.11	89.15	78.05	78.60	98	54	19.4	24.6	18	25	20	20	16	16
Newport Barracks	73.00	73.09	80.40	75.93	75.60	88	60	12.4	15.6	..	..	..	..	..	..
Fort Mackinac	60.10	66.24	70.40	64.90	65.41	86	44	20.6	21.4	19	37	18	31	19	38
Fort Brady	57.35	71.03	76.96	62.61	66.99	93	44	26.0	26.0	2	4	11	18	26	40
Fort Snelling	65.38	71.51	79.41	71.29	71.90	93	50	21.1	21.9	5	12	29	33	10	13
Fort Leavenworth	66.25	77.58	84.45	75.03	75.83	96	54	20.2	21.8	7	8	11	11	4	4
Matamoros	81.87	85.22	91.22	83.41	85.43	94	80	9.6	5.4	0	0	3	8	121	263
Vera Cruz	75.00	80.00	82.00	81.00	79.50	84	73	4.5	6.5	40	77	12	26	11	25
Monterey	55.71	59.25	66.80	52.78	58.64	68	51	9.4	7.6	2	5	4	7	0	0
Los Angeles	72.30	73.64	79.60	74.50	75.01	82	69	7.0	6.0	..	..	..	..	..	..

MONTH OF JULY, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	12	16	29	59	67	7	25	9	29	6.25	6.67	5.77	7.45	6.53	20	11	8	0	4.32	
11	17	13	22	55	72	1	1	18	21	5.68	6.61	3.09	5.64	5.25	19	12	7	0	1.62	
24	32	1	1	40	45	11	11	25	39	6.03	5.74	5.16	6.29	5.80	19	12	9	0	2.52	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	19	12	10	0	6.01	
8	10	17	21	20	43	8	9	11	13	3.96	5.19	5.12	5.00	4.81	15	16	10	0	4.18	
24	24	12	12	34	76	2	4	11	18	3.23	4.30	4.70	4.26	4.12	14	17	9	0	2.51	
16	35	4	8	33	72	22	46	2	6	5.35	4.87	4.38	7.03	5.40	18	13	8	0	3.47	
22	55	30	73	13	34	11	23	10	20	7.61	6.90	5.32	4.38	6.05	20	11	11	0	13.25	
28	52	22	44	2	4	30	50	13	28	5.54	4.39	2.74	3.97	4.16	12	19	16	0	7.22	
21	51	19	60	28	30	4	4	26	26	2.80	1.74	3.00	3.35	2.72	6	25	21	0	11.92	
10	12	43	43	31	31	30	31	4	4	3.30	3.84	1.57	5.41	3.53	8	23	15	0	5.06	
0	0	45	91	10	18	22	39	14	27	6.30	7.10	5.23	7.70	6.58	12	19	11	0	3.30	
11	13	45	57	4	6	2	2	3	3	5.09	5.93	5.70	6.35	5.76	19	12	7	0	6.55	
0	0	32	32	4	4	16	16	2	2	4.61	4.93	4.32	6.61	5.11	16	15	13	0	11.18	
47	47	54	64	12	14	1	1	0	0	6.09	7.12	7.30	8.10	7.15	23	8	10	0	1.89	
21	39	31	50	18	32	4	7	1	1	3.38	3.67	4.25	5.67	4.24	12	19	8	0	5.84	
29	50	10	16	13	20	9	15	17	40	5.96	6.83	5.90	8.35	6.76	21	10	5	0	4.47	
24	24	17	17	13	17	0	0	16	28	6.27	7.06	7.13	6.20	6.66	23	8	4	0	5.30	Weather observa-
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	20	11	11	·0	....	[tions inaccurate.
10	15	10	25	9	24	23	62	16	46	5.10	6.11	5.21	5.20	5.40	19	12	7	0	2.18	
17	29	9	12	13	23	19	31	27	55	1.09	7.16	7.32	7.03	5.65	20	11	9	0	3.79	
64	78	5	9	4	5	1	2	6	17	4.41	5.29	5.70	3.00	4.60	17	14	10	0	3.66	
12	12	76	87	9	9	0	0	5	6	8.41	8.77	9.00	9.03	8.80	27	4	2	0	1.20	
0	0	0	0	0	0	0	0	0	0	9.48	9.06	8.67	9.09	9.07	30	1	0	0	0.00	
30	62	4	5	0	0	5	9	0	0	4.45	4.93	7.48	6.16	5.76	17	14	16	0	16.70	
0	0	0	0	12	23	0	0	106	237	2.93	5.54	7.66	4.50	6.88	16	15	0	0	0.00	
..	..	..	..	..	..	..	..	..	..	3.30	7.30	7.90	7.00	6.37	25	6	1	0	0.03	

MONTH OF AUGUST, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	66.74	72.00	79.77	72.25	72.69	86	59	13.3	13.7	5	15	20	58	2	3
Fort Columbus	67.29	74.19	77.80	69.93	72.30	84	60	11.7	12.3	10	10	17	24	5	5
West Point	69.16	73.87	75.45	73.64	73.03	83	58	10.0	15.0	4	4	9	9	3	3
Watervliet Arsenal	64.64	72.48	80.29	68.35	71.44	86	56	14.5	15.5	..	..	..	..	..	..
Alleghany Arsenal	60.41	69.96	78.83	65.48	68.67	86	49	17.3	19.7	33	33	10	17	9	9
Fort McHenry	68.80	72.13	86.90	73.24	75.27	94	57	18.7	18.3	4	4	32	55	9	30
Fort Monroe	71.77	74.16	78.51	72.96	74.35	92	65	17.6	9.4	4	8	14	40	35	94
Fort Moultrie	78.90	80.58	84.51	79.90	80.97	90	72	9.0	9.0	16	24	12	23	25	50
Fort Brooke	75.54	83.48	86.39	79.22	81.16	90	73	8.8	8.2	1	3	11	19	14	24
Mount Vernon Arsenal	70.80	80.12	82.16	76.25	77.33	92	64	14.7	13.3	4	4	21	21	7	7
New Orleans	76.17	86.19	88.79	79.58	82.68	91	71	8.3	11.7	9	9	9	9	16	16
Baton Rouge	74.00	81.09	88.05	76.00	81.04	92	70	11.0	11.0	0	0	4	8	56	93
Fort Washita	69.09	79.12	89.41	76.29	78.48	100	61	21.5	19.5	37	41	13	14	24	24
Fort Smith	68.90	75.35	83.42	75.87	75.88	94	62	18.1	13.9	30	30	21	21	49	49
Fort Gibson	68.73	74.71	81.39	73.27	74.52	91	37	16.5	37.5	9	12	29	29	15	17
Fort Scott	61.96	75.16	81.67	70.12	72.23	96	48	23.8	24.2	21	28	13	13	20	20
St. Louis Arsenal	64.10	72.17	87.07	73.05	74.10	92	50	17.9	24.1	23	24	14	14	15	15
Newport Barracks	68.74	73.03	75.46	73.90	75.28	87	61	11.7	14.3	..	..	..	..	..	..
Fort Mackinac	56.21	61.18	66.27	60.22	60.97	77	45	16.0	16.0	14	35	20	46	7	16
Fort Brady	53.17	64.80	72.24	59.30	62.43	88	41	25.6	21.4	7	7	15	15	14	22
Fort Snelling	58.54	66.09	75.58	66.70	66.73	83	47	16.3	19.3	1	2	31	49	25	25
Fort Leavenworth	61.22	71.22	79.24	65.30	69.24	90	50	20.8	19.2	4	5	5	6	3	3
Matamoros	79.90	85.09	90.19	83.08	84.56	98	79	13.5	5.5	0	0	0	0	124	280
Vera Cruz	75.51	81.25	83.03	80.80	80.15	85	74	4.9	6.1	37	66	4	7	8	12
Monterey	54.93	60.60	64.94	56.55	59.26	76	50	16.7	9.3	1	2	11	12	0	0

MONTH OF AUGUST, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	27	16	28	54	136	3	6	12	37	6.09	5.70	5.35	6.35	5.87	20	11	8	0	3 30	
18	44	11	15	33	53	2	2	28	40	5.80	5.93	5.45	7.16	6.08	20	11	8	0	6.93	
40	45	9	9	20	20	2	3	37	41	5.83	6.51	5.96	5.87	6.04	22	9	9	0	2 20	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	23	8	7	0	1.74	
7	10	14	70	17	17	14	14	20	28	1.93	5.28	4.54	6.51	4.56	16	15	11	0	3.26	
32	36	22	23	10	15	0	0	15	16	3.22	4.70	4.10	4.19	4.05	14	17	7	0	2.97	
39	72	11	19	11	18	7	14	3	7	1.50	2.70	3.42	5.71	4.44	10	21	14	1	8.93	
22	50	30	72	4	9	15	30	0	0	6.90	6.90	6.70	3.74	6.06	20	11	14	0	14.70	Therm. protected.
28	54	18	27	37	71	11	23	4	7	6.03	4.93	3.39	5.58	4.48	10	21	10	0	4.80	
29	29	14	14	10	10	10	10	29	29	6.09	6.48	5.32	6.06	5.98	21	10	12	0	7.39	
4	4	41	41	12	12	26	26	7	8	5.96	5.69	3.58	7.83	5.76	18	13	9	0	6.81	
4	6	7	10	13	25	24	38	10	24	6.03	7.01	7.07	8.00	7.00	20	11	10	0	4.20	
11	15	31	31	1	1	5	5	2	2	6.09	6.19	6.70	6.83	6.45	25	6	12	0	5.85	
5	5	6	6	2	2	10	10	1	1	4.90	5.58	4.70	7.45	5.65	20	11	6	0	6.40	
57	62	13	22	0	0	0	0	1	3	5.24	7.15	7.10	7.18	6.66	20	11	9	0	1.78	
14	19	32	54	14	19	8	9	2	2	4.38	3.93	3.74	5.67	4.43	14	17	6	0	1.79	
16	16	12	12	16	16	10	15	18	33	5.20	7.03	7.11	6.00	6.33	20	11	4	0	0.74?	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	21	10	6	0	....	Therm. protected.
14	29	16	29	12	25	12	35	29	80	4.50	5.18	5.15	5.13	4.99	17	14	6	0	1.82	
15	16	6	14	16	18	30	45	21	34	6.14	6.20	6.80	7.26	6.60	18	13	6	0	3.83	
45	51	9	11	10	15	1	1	2	4	2.74	4.58	5.35	3.22	3.97	18	13	10	0	2.49	
27	29	73	79	6	10	0	0	6	7	6.21	8.15	7.10	8.20	7.41	25	6	3	0	0.50	
0	0	0	0	0	0	0	0	0	0	8.00	8.48	8.29	9.70	8.61	28	3	8	0	....	
27	49	2	3	1	2	22	24	1	2	4.75	5.93	6.50	5.30	5.62	18	13	16	0	9.50	
0	0	0	0	5	5	9	21	98	225	2.66	6.01	7.62	3.44	4.93	20	11	0	0	0.00	

MONTH OF SEPTEMBER, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	60.36	63.86	72.33	64.40	65.24	88	50	22.8	15.2	8	20	21	64	15	33
Fort Columbus	59.80	65.29	69.43	64.40	64.73	84	50	19.3	14.7	4	4	27	68	1	1
West Point	58.80	64.40	67.80	62.46	63.36	87	45	23.6	18.4	6	8	21	30	20	30
Watervliet Arsenal	55.63	62.60	71.37	59.83	62.36	84	44	21.6	18.4	..	..	..	..	..	..
Alleghany Arsenal	54.36	63.36	71.40	59.00	62.03	87	42	25.0	20.0	32	48	9	9	12	13
Fort McHenry	63.20	68.80	75.20	66.12	68.33	94	51	25.7	17.3	10	25	25	56	1	4
Fort Monroe	66.20	69.73	75.66	68.33	69.98	88	54	18.0	16.0	9	25	20	44	8	23
Fort Moultrie	72.83	76.13	80.53	76.71	76.55	89	62	12.5	14.5	0	0	3	5	29	49
Fort Brooke	74.53	78.46	86.76	76.23	79.00	86	70	7.0	9.0	2	5	14	21	24	38
Mount Vernon Arsenal	65.20	72.66	76.53	71.43	71.45	88	54	16.5	17.5	14	17	58	58	12	18
New Orleans	71.35	81.60	82.56	75.90	77.85	91	66	13.1	11.8	15	17	12	12	30	31
Fort Washita	63.03	73.86	84.54	72.43	73.46	98	48	24.5	25.5	56	58	7	7	13	13
Fort Smith	61.26	69.66	82.00	71.13	71.01	94	50	23.0	21.0	26	29	0	0	53	53
Fort Gibson	62.20	70.89	79.56	68.52	70.29	92	48	21.7	22.3	0	0	28	36	7	9
Fort Scott	54.53	71.16	80.13	63.70	67.38	90	44	32.6	23.4	15	18	8	9	15	16
Jefferson Barracks	55.40	65.53	80.76	59.40	67.86	88	45	20.1	22.8	11	20	13	23	3	4
St. Louis Arsenal	57.12	67.16	80.13	67.00	67.85	96	44	28.2	23.8	12	16	17	17	16	16
Newport Barracks	65.70	70.13	74.67	71.53	70.51	84	56	13.5	14.5	..	..	..	..	..	..
Fort Mackinac	49.28	52.13	56.10	51.24	52.19	64	36	11.8	16.2	14	40	14	47	8	29
Fort Brady	49.73	55.60	61.30	52.21	54.71	77	36	22.3	18.7	6	11	28	41	23	35
Fort Snelling	50.06	57.30	67.06	57.53	57.99	87	39	29.0	19.0	3	3	10	17	1	1
Fort Leavenworth	55.33	66.16	76.16	64.86	65.63	90	46	24.4	19.6	4	6	2	2	5	5
Matamoros	75.06	81.76	87.00	79.70	80.88	92	67	11.1	13.9	25	46	18	33	77	148
Vera Cruz	76.10	80.73	82.26	80.63	80.00	85	73	5.0	7.0	58	131	3	5	5	10
Monterey	55.18	60.26	69.80	59.42	61.16	90	50	28.8	11.2	7	9	29	41	0	0

MONTH OF SEPTEMBER, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	15	5	8	35	86	5	11	25	75	3.90	4.66	5.30	6.66	5.13	16	14	9	0	10.60	
17	40	9	24	26	36	0	0	36	71	3.86	4.86	4.70	4.96	4.59	13	17	13	0	12.20	
35	37	3	3	7	9	1	1	45	59	3.93	4.26	4.76	5.96	4.72	15	15	10	0	3.58	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	21	9	6	0	3.06	
5	7	16	27	9	16	19	29	18	30	2.76	4.80	4.40	5.63	4.39	14	16	12	0	3.92	
13	21	21	52	8	11	3	3	39	102	3.29	3.10	3.25	5.18	3.70	11	19	8	0	5.55	
21	51	5	6	20	43	4	8	33	89	4.50	4.26	3.90	5.90	4.64	13	17	11	0	7.87	
15	26	43	92	17	28	13	23	0	0	6.96	6.53	6.53	5.83	6.46	23	7	5	0	6.64	
29	32	25	38	16	29	4	4	6	9	3.96	3.33	3.10	3.36	3.43	10	20	15	0	10.23	
17	17	2	2	7	13	3	3	7	9	4.76	4.90	4.10	5.33	4.77	15	15	5	0	5.85	
7	7	29	31	4	4	12	12	11	12	3.30	5.10	4.79	7.28	5.11	15	15	7	0	2.83	
2	2	39	58	0	0	1	1	2	5	8.26	8.63	8.63	9.30	8.70	27	3	2	0	2.40	
0	0	18	18	0	0	22	22	1	1	7.32	7.51	7.19	9.10	7.78	28	2	2	0	0.76	
45	64	25	38	10	15	3	3	2	6	7.13	8.43	8.56	5.56	7.42	28	2	2	0	0.95	
11	16	34	60	12	21	17	19	8	8	5.73	7.63	7.13	8.13	7.15	23	7	5	0	1.50	
14	17	23	46	12	14	4	6	37	51	5.93	7.13	7.06	7.66	6.94	24	6	4	0	0.85	
25	25	15	15	13	13	15	16	7	9	5.19	6.22	7.17	6.25	6.20	23	7	3	0	2.87	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	12	12	0	....	Therm. protected.
31	115	6	23	13	36	14	48	20	68	3.18	3.25	4.16	4.60	3.79	9	21	8	0	3.40	
11	17	5	6	9	12	19	38	19	28	3.27	4.24	5.30	5.70	4.62	14	16	18	0	5.71	
38	44	14	21	34	44	8	15	12	18	3.76	4.76	4.63	3.53	4.17	15	15	8	0	4.00	
14	19	78	92	7	7	3	4	7	9	8.67	8.67	8.66	9.13	8.78	26	4	1	0	0.32	
0	0	0	0	0	0	0	0	0	0	7.16	7.20	7.16	8.20	7.43	24	6	5	0	....	
3	6	5	9	4	7	23	28	4	10	4.03	4.35	6.80	5.90	5.27	16	14	12	0	3.98	
0	0	0	0	8	12	5	6	70	148	3.23	5.60	7.50	4.20	5.13	16	14	0	0	0.00	

MONTH OF OCTOBER, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	48.93	52.70	62.54	53.58	54.44	72	32	17.5	22.5	15	46	46	124	16	40
Fort Columbus	46.77	51.77	57.51	49.97	51.40	68	32	16.6	19.4	6	19	13	17	3	7
West Point	44.70	50.83	56.93	49.48	50.48	68	28	17.5	22.5	9	17	4	6	2	2
Watervliet Arsenal	39.94	47.03	55.58	45.87	47.10	68	20	20.9	27.1	..	..	..	..	..	..
Alleghany Arsenal	42.64	48.83	59.45	46.70	49.41	71	25	21.6	24.4	39	64	9	10	9	13
Fort McHenry	49.14	54.16	65.25	54.60	55.79	81	32	25.2	23.8	20	20	34	42	0	0
Fort Monroe	57.03	60.32	65.64	59.00	60.50	82	41	21.5	19.5	11	34	37	120	20	51
Fort Moultrie	59.29	67.58	73.19	66.58	66.66	86	48	19.3	18.8	34	70	33	58	17	31
Fort Brooke	70.19	75.09	80.48	73.06	74.70	86	62	11.3	12.7	0	0	46	121	43	110
Mount Vernon Arsenal	57.87	64.96	76.77	65.61	66.30	86	44	19.7	22.3	22	56	48	48	13	16
New Orleans	63.43	74.61	77.83	68.76	71.16	87	51	15.8	20.2	16	21	5	5	30	32
Fort Washita	54.96	66.80	77.80	62.51	65.52	92	36	26.5	29.5	31	43	5	6	15	19
Fort Smith	54.48	60.35	73.38	61.16	62.34	90	34	27.7	28.3	17	18	4	5	65	68
Fort Gibson	54.41	60.44	71.80	59.59	61.56	88	34	26.4	27.6	1	2	32	49	3	4
Fort Scott	46.19	58.41	68.09	52.38	56.27	95	30	38.7	26.3	36	56	7	7	16	18
St. Louis Arsenal	43.29	53.07	62.06	53.11	52.88	88	24	35.1	28.9	24	19	9	9	13	13
Newport Barracks	49.32	53.52	61.04	56.29	55.04	81	32	26.0	23.0	..	..	..	..	..	..
Fort Mackinac	41.17	43.25	47.12	43.22	43.69	65	19	21.3	24.7	16	48	10	36	5	18
Fort Brady	39.40	44.66	49.30	43.66	44.25	70	16	25.7	28.3	13	18	7	9	22	25
Fort Snelling	37.90	44.61	57.64	46.48	46.66	90	14	33.3	42.7	4	6	8	17	5	6
Fort Leavenworth	46.21	54.20	71.30	51.10	55.70	90	30	34.3	25.7	2	5	18	20	1	1
Matamoros	70.90	76.30	81.45	76.64	76.32	88	51	11.7	25.3	30	49	24	50	60	115
Vera Cruz	74.87	78.45	79.16	78.51	77.00	82	68	5.0	9.0	78	221	2	4	5	9
Monterey	50.07	61.56	63.89	56.12	57.91	83	38	25.1	19.9	2	2	25	27	0	0
San Francisco	54.06	......	62.48	56.10	57.55	72	46	14.5	11.5	..	..	..	..	..	..

MONTH OF OCTOBER, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	10	9	23	12	38	2	8	20	72	6.58	6.61	7.35	8.58	7.28	22	9	5	0	4.25	
12	27	2	7	22	38	2	2	64	138	6.19	6.61	7.00	7.00	6.70	23	8	5	0	2.13	
29	43	7	15	7	7	6	8	60	74	6.41	6.16	6.03	6.35	6.23	21	10	10	0	1.97	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	23	8	8	0	3.16	
4	14	12	16	7	14	38	88	6	13	2.45	4.35	5.35	5.48	4.40	16	15	10	0	4.76	
26	34	2	7	16	25	13	32	13	24	4.16	5.10	4.11	7.00	5.09	19	12	8	0	3.38	
30	60	0	0	4	11	14	34	8	21	5.41	5.61	5.38	7.83	6.05	19	12	3	0	1.92	
14	15	16	16	2	2	6	7	2	3	9.26	9.29	9.09	9.41	9.26	29	2	0	0	0.00	
11	30	10	15	10	17	2	3	2	5	4.70	4.83	4.12	5.27	4.73	18	13	7	0	2.01	
17	17	5	5	1	1	2	2	16	37	6.64	7.12	7.54	8.54	7.46	25	6	3	0	0.42	
8	8	40	40	1	1	16	14	8	8	3.45	6.85	6.44	7.27	6.00	19	12	2	0	0.75	
6	10	50	82	4	6	8	10	5	7	7.64	8.32	8.19	7.64	7.94	27	4	3	0	0.41	
0	0	14	17	3	6	18	20	3	5	5.09	6.35	7.03	7.70	6.54	24	7	5	0	1.26	
37	87	36	65	9	16	3	4	3	7	4.32	6.83	7.64	8.29	6.77	25	6	3	0	3.10	
8	11	28	86	7	18	9	9	13	18	3.22	3.22	3.48	4.06	3.49	11	20	6	0	2.48	
19	19	20	22	6	7	16	16	17	21	5.00	6.00	6.11	5.21	5.58	20	11	10	0	10.07	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	23	8	8	0	....	Therm. protected.
11	35	16	52	25	92	10	37	31	100	3.27	4.24	5.10	5.80	4.60	16	15	2	0	0.35	
9	15	8	10	17	24	31	47	17	33	5.70	4.28	5.80	6.20	5.49	21	10	9	3	1.20	
35	43	25	27	30	43	7	10	10	22	4.29	5.19	5.29	3.48	4.56	15	16	1	1	0.37	
17	24	49	77	6	16	4	5	27	48	8.20	8.10	8.12	9.50	8.48	24	7	0	0	0.00	
4	8	5	13	1	1	0	0	0	0	6.64	6.54	6.45	7.61	6.81	26	5	4	0	....	
2	4	4	6	1	2	11	17	7	13	3.24	3.85	4.83	4.00	3.98	12	19	10	0	4.05	
0	0	0	0	22	33	1	1	74	150	4.48	7.20	7.43	6.30	6.35	23	8	4	0	1.10	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	8	23	4	0	....	Observ's at 2 p. m.

MONTH OF NOVEMBER, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Hamilton	44.26	45.96	52.80	45.90	47.23	76	14	28.8	33.2	17	54	14	34	8	18
Fort Columbus	42.86	46.93	49.71	44.66	46.04	70	12	24.0	34.0	10	12	8	5	1	1
West Point	42.13	46.83	49.00	43.83	45.45	70	11	24.5	34.5	5	16	3	6	3	3
Watervliet Arsenal	39.60	43.77	49.23	43.53	44.03	68	4	24.0	40.0	..	..	..	..	..	..
Alleghany Arsenal	37.63	41.00	48.76	41.10	42.12	71	14	28.9	28.1	25	41	4	4	9	10
Fort McHenry	44.20	48.13	58.00	47.50	49.21	78	16	28.8	33.2	14	17	4	5	0	0
Fort Monroe	49.93	52.43	57.36	52.36	53.02	72	30	19.0	23.0	19	33	21	39	8	16
Fort Moultrie	54.90	59.93	65.90	61.30	60.51	82	32	21.5	28.5	64	145	15	29	1	3
Fort Brooke	61.16	67.50	74.93	67.74	67.83	83	29	15.2	38.8	16	27	37	83	25	51
Mount Vernon Arsenal	50.30	56.50	67.43	57.13	57.84	82	25	24.2	32.8	21	43	21	22	15	16
New Orleans	58.14	65.97	71.21	62.14	64.37	83	29	18.6	35.4	24	27	7	8	19	20
Fort Washita	44.10	48.80	61.10	50.66	51.16	81	18	29.8	33.2	47	68	9	9	6	7
Fort Smith	42.06	46.63	56.73	45.60	47.75	74	16	26.3	31.7	27	47	5	5	43	43
Fort Gibson	45.40	50.96	62.67	51.24	52.57	74	19	21.4	33.6	9	28	15	32	6	15
Fort Scott	35.46	42.10	48.53	39.30	41.35	80	10	38.6	31.4	25	38	10	19	10	16
St. Louis Arsenal	37.12	42.22	51.10	42.10	43.13	78	20	34.9	23.1	18	18	19	19	17	20
Newport Barracks	43.53	45.07	51.20	46.46	46.52	74	22	27.5	24.5	..	..	..	..	..	..
Fort Mackinac	31.90	32.10	34.14	32.26	32.60	54	10	21.4	22.6	12	43	16	58	9	30
Fort Brady	30.36	32.63	36.16	32.26	32.85	55	6	22.2	26.8	25	46	8	9	31	58
Fort Snelling	25.86	28.43	36.60	30.93	30.45	74	9	43.5	21.5	0	0	7	8	5	12
Fort Leavenworth	33.30	37.26	45.14	37.25	38.24	77	8	38.8	30.2	5	5	13	13	3	3
Matamoros	64.73	70.06	76.30	69.93	70.25	86	44	15.7	26.3	54	106	11	19	32	55
Vera Cruz	73.07	74.10	75.65	75.31	74.53	82	64	7.5	10.5	22	60	12	31	26	75
Monterey	44.00	55.40	60.90	49.30	52.40	72	33	19.6	19.4	12	15	20	23	0	0
San Francisco	46.76	......	54.89	49.03	50.23	66	39	15.8	11.2	..	..	..	..	..	..

MONTH OF NOVEMBER, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	3	10	18	17	48	6	18	46	192	4.46	4.20	4.96	6.26	4.97	14	16	3	0	5.20	
9	21	4	4	24	60	6	12	61	60	4.26	5.00	5.56	4.46	4.82	16	14	9	0	6.29	
18	21	10	18	12	12	15	29	54	89	4.30	5.06	4.80	5.00	4.79	15	15	4	0	1.80	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	24	6	5	1	1.97	
5	6	17	19	20	32	21	48	19	72	2.76	2.93	3.43	4.13	3.31	11	19	12	1	4.27	
28	35	8	9	14	22	17	20	35	63	5.10	4.17	4.16	4.11	4.38	15	15	8	0	2.54	
10	13	1	1	14	27	16	34	31	64	4.43	4.30	4.26	6.73	4.93	14	16	5	0	4.10	
2	4	13	23	6	8	9	17	10	21	8.20	8.53	8.53	8.66	8.48	26	4	1	0	0.45	
22	39	8	13	0	0	3	5	9	12	5.06	5.60	5.20	6.56	5.60	21	9	1	0	0.28	
29	63	14	41	1	5	0	0	19	48	5.40	6.20	6.26	6.80	6.16	18	12	5	0	4.10	
8	8	30	31	6	8	21	24	5	6	3.00	6.00	5.54	7.70	5.56	14	16	5	0	2.59	
8	10	44	84	0	0	2	2	4	4	4.33	5.06	6.23	6.00	5.40	19	11	11	0	4.65	
1	2	16	19	6	9	18	30	4	11	4.26	4.20	4.76	5.03	4.56	14	16	9	0	7.05	
32	81	30	92	17	27	7	11	4	12	3.20	4.25	4.75	4.30	4.12	19	11	5	0	3.35	
11	24	34	108	2	7	7	7	21	43	3.00	3.20	4.46	5.20	3.96	11	19	8	2	5.86	
16	18	10	12	15	26	15	30	10	13	4.18	5.13	6.02	5.05	5.09	16	14	7	0	10.07	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	12	11	1	....	Therm. protected.
16	60	12	40	14	47	11	45	30	109	3.15	3.27	4.30	3.12	3.46	7	23	3	1	3.10	
9	14	9	13	13	19	18	36	7	9	4.10	4.60	4.20	4.10	4.25	12	18	7	6	2.62	
46	60	7	10	6	7	12	26	37	72	3.06	3.66	4.43	3.16	3.57	11	19	0	4	1.71	
16	22	22	31	22	32	1	1	38	41	6.70	7.00	8.30	8.12	7.53	23	7	3	2	0.37	
2	5	16	38	0	0	5	11	0	0	7.03	6.66	6.43	8.46	7.14	21	9	2	0	....	
8	14	5	9	3	3	11	15	4	5	5.00	6.13	6.48	6.66	6.07	18	12	6	0	0.54	
1	1	0	0	24	39	23	38	36	48	5.40	6.60	7.68	6.20	6.47	22	8	8	0	3.10	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	12	8	0	....	Observ'ns at 2 p. m.

MONTH OF DECEMBER, 1847.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Hamilton	37.03	37.96	42.64	33.35	37.75	58	15	20.2	22.8	9	25	20	70	10	20
Fort Columbus	35.45	38.55	40.90	36.71	37.90	56	12	18.1	28.9	10	19	14	23	5	5
West Point	33.41	36.35	38.25	35.06	35.77	55	11	19.2	24.8	4	4	9	17	0	0
Watervliet Arsenal	28.06	30.84	36.74	33.55	32.30	66	2	33.7	30.3	..	..	..	..	..	..
Alleghany Arsenal	29.87	32.30	37.74	32.51	33.10	58	— 3	24.9	36.1	11	16	22	34	6	8
Fort McHenry	34.25	37.16	44.16	36.17	37.94	66	13	28.1	24.9	3	7	18	26	1	1
Fort Monroe	40.67	42.41	48.93	43.51	43.88	69	18	25.1	25.9	7	11	5	17	14	35
Fort Moultrie	50.22	53.61	59.06	52.32	53.80	79	32	25.2	21.8	27	42	21	43	15	30
Fort Brooke	48.87	56.00	65.54	52.39	55.70	78	30	22.3	25.7	20	37	26	44	24	50
Mount Vernon Arsenal	40.64	45.54	56.22	46.06	47.11	72	26	24.9	21.1	10	16	17	41	13	16
New Orleans	47.73	54.59	59.74	50.95	53.25	76	31	22.7	22.3	33	35	12	13	31	31
Fort Washita	36.00	41.25	53.93	44.77	44.00	74	14	30.0	30.0	55	60	2	2	2	3
Fort Smith	31.35	45.29	51.64	41.32	42.40	76	12	33.6	30.4	35	56	4	6	20	23
Fort Gibson	35.41	38.70	49.90	40.62	41.16	68	14	26.8	27.2	1	1	28	75	4	9
Fort Scott	27.58	34.00	42.16	31.83	33.89	68	10	34.1	23.9	36	44	0	0	2	2
Jefferson Barracks	28.25	31.93	35.06	31.93	31.64	65	4	33.4	27.6	5	9	5	7	10	13
St. Louis Arsenal	25.03	30.03	38.12	32.00	31.30	58	4	26.7	27.3	19	44	10	17	10	13
Newport Barracks	31.23	38.61	31.64	33.19	33.67	59	2	25.3	31.7	..	..	..	..	..	..
Fort Mackinac	20.60	21.18	25.29	23.20	22.57	45	2	22.4	20.6	12	39	24	77	1	4
Fort Brady	19.18	21.21	25.80	22.21	22.10	41	— 5	18.9	27.1	35	44	13	14	30	36
Fort Snelling	12.06	14.32	22.67	16.38	16.36	44	—19	27.6	35.4	2	3	1	1	1	1
Fort Leavenworth	25.21	28.40	42.28	24.14	30.00	56	8	26.0	22.0	11	14	9	9	5	6
Matamoros	54.90	59.93	69.19	61.45	61.37	80	36	18.6	25.4	64	107	2	5	15	23
Vera Cruz	70.33	72.25	73.50	70.00	71.52	74	58	2.5	13.5	41	110	0	0	10	12
Monterey	42.20	51.80	60.10	48.30	50.60	74	32	23.4	18.6	17	18	10	11	0	0
Los Angeles	51.09	65.10	71.10	56.20	60.87	83	42	22.1	17.9	40	..	1	..	7	..
San Francisco	46.61	......	55.16	50.60	50.79	63	39	12.2	10.8	..	..	..	..	..	..

MONTH OF DECEMBER, 1847.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	7	10	28	25	79	10	28	37	149	4.12	3.51	3.48	4.93	4.01	14	17	11	3	7.18	
12	14	17	67	16	19	5	9	45	63	2.64	2.67	3.45	3.58	3.08	7	24	11	3	6.35	
30	42	18	20	9	10	4	7	50	89	3.80	3.22	3.03	4.32	3.59	12	19	3	1	3.50	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	21	10	6	4	1.64	
1	1	20	28	14	35	29	63	21	73	2.70	2.58	1.87	1.93	2.27	6	25	10	2	4.98	
20	21	8	10	31	47	33	38	10	21	3.17	2.19	2.19	4.14	2.94	8	23	8	4	2.38	
11	18	20	35	12	30	24	59	31	81	5.12	4.93	3.93	6.29	5.06	14	17	7	1	2.64	
9	18	12	24	15	32	22	44	3	5	7.41	7.22	8.64	9.22	8.12	26	5	7	0	4.25	
25	35	5	5	8	11	5	6	11	30	4.71	5.64	5.22	6.48	5.51	18	13	1	0	4.50	
16	18	4	6	13	31	5	9	46	71	5.25	5.80	5.41	6.22	5.67	18	13	9	0	9.01	
4	4	13	15	6	8	15	15	10	12	2.16	5.86	5.68	6.78	5.12	16	15	8	0	7.73	
1	2	42	72	3	3	7	7	12	18	5.00	6.16	6.93	7.74	6.45	20	11	3	0	0.86	
0	0	17	31	15	19	32	33	1	1	5.83	5.12	6.70	6.54	6.04	20	11	3	0	1.15	
27	51	29	80	5	11	4	8	26	50	4.12	7.10	8.11	8.03	6.84	28	3	4	0	1.06	
6	18	33	110	10	20	24	35	13	22	3.70	4.90	6.51	5.93	5.26	18	3	3	0	1.61	
26	73	11	29	17	36	7	16	40	94	4.03	4.32	3.61	4.64	4.15	25	6	2	4	0.23	
11	14	17	19	13	15	28	43	16	19	5.09	6.02	6.09	6.07	5.81	22	9	3	0	1.14	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	16	15	5	10	....	Therm. protected.
10	32	19	74	23	81	10	43	25	84	3.20	4.40	4.21	4.20	4.00	10	21	0	4	0.58	Therm. protected.
9	18	10	14	11	16	13	21	3	4	3.22	4.23	4.29	4.24	3.99	14	17	7	10	2.83	
40	52	5	6	13	15	4	7	58	84	3.00	4.19	4.70	2.70	3.64	9	22	0	4	0.66	
18	26	16	26	18	34	15	20	32	43	6.12	7.20	6.80	6.25	6.59	23	8	1	3	1.15	
4	4	39	71	0	0	0	0	0	0	7.41	7.09	7.90	6.96	7.34	23	8	0	0	0.00	
0	0	3	4	0	0	0	0	0	0	4.55	5.55	5.64	5.16	5.25	16	15	1	0	0.50	
0	0	0	0	21	30	23	32	53	80	6.87	7.68	6.87	6.35	6.94	25	6	1	0	0.01	
0	..	24	..	0	..	49	..	1	..	5.90	6.10	6.00	7.10	6.28	24	7	2	0	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	20	11	5	0	....	Observ'ns at 2 p. m.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Hamilton.......	40 37	74 02	25	32.80	32.26	36.71	45.50	54.97	64.84	74.74	72.69	65.24
Fort Columbus.......	40 42	74 01	23	32.40	31.60	36.01	49.50	59.51	70.84	57.61	72.30	64.73
West Point..........	41 23	74.00	167	28.90	28.20	32.45	45.19	58.38	64.83	75.35	73.03	63.36
Watervliet Arsenal ..	42 50	73.55	50	25.98	21.72	28.52	42.83	59.29	66.90	73.95	71.44	62.36
Alleghany Arsenal...	40 32	80 12	704	29.92	32.62	37.27	50.31	62.36	66.97	72.48	68.67	62.03
Fort McHenry.......	39 18	76 33	36	30.71	32.52	38.00	55.74	64.19	69.99	77.62	75.27	68.33
Fort Monroe........	37 00	76 15	20	42.19	42.65	45.01	54.91	62.24	72.24	76.16	74.35	69.98
Fort Moultrie........	32 42	79 56	20	52.71	53.82	54.42	66.62	69.32	80.01	81.07	80.97	76.55
Fort Brooke.........	28 00	82 28	20	65.05	60.98	65.29	72.83	74.37	81.09	80.68	81.16	79.00
Fort Barrancas......	30 18	87 27	20	50.59	54.02	57.69	69.28	71.82	......	......	......	......
Mt. Vernon Arsenal..	31 12	88 20	75	47.40	55.02	57.09	69.99	70.53	77.90	77.08	77.33	71.45
New Orleans Barracks	29 57	90 00	20	54.85	57.30	61.90	71.48	76.56	78.75	81.82	82.68	77.85
Baton Rouge Barracks	30 26	91 18	41	49.84	......	......	......	......	80.08	80.05	81.04	......
Fort Washita........	34 15	96 55	200?	35.83	45.60	49.16	67.72	66.90	76.34	79.47	78.48	73.46
Fort Smith..........	35 23	94 29	460	34.43	40.17	47.92	65.71	65.76	75.71	77.86	75.88	71.01
Fort Gibson.........	35 47	95 10	542	33.55	42.73	47.16	66.01	65.52	72.75	77.92	74.52	70.29
Fort Scott...........	37 45	94 35	1000?	22.70	33.32	37.17	57.88	61.57	70.93	76.06	72.23	67.38
Jefferson Barracks....	38 28	90 15	382	......	......	37.57	......	......	69.60	77.41	......	67.86
St. Louis Arsenal....	38 40	90 05	450	24.64	33.41	38.06	56.65	62.19	72.64	78.60	74.10	67.85
Newport Barracks ...	39 05	84 22	....	......	......	......	......	......	......	75.60	75.28	70.51
Fort Mackinac.......	45 51	84 38	728	13.14	15.56	19.60	33.32	45.70	53.12	65.41	60.97	52.19
Fort Brady..........	46 30	84 43	600	12.40	13.26	19.87	35.03	51.37	55.64	66.99	62.43	54.71
Fort Snelling........	44 53	93 10	820	4.24	19.70	23.88	46.18	52.64	65,24	71.90	66.73	57.99
Fort Leavenworth ...	39 18	94 55	896	18.16	31.26	34.95	57.90	59.45	69.91	75.83	69.24	65.63
Matamoros..........	25 56	97 36	100?	58.51	64.14	67.66	77.29	82.38	84.79	85.43	84.56	80.88
Vera Cruz...........	19 12	96 08	13	......	......	......	......	......	81.07	79.50	80.15	80.00
Monterey	36 36	121 52	85	......	......	......	......	55.39	57.90	58.64	59,26	61.16
Los Angeles.........	34 03	118 12	457	......	......	......	......	......	73.05	75.01	......	......
San Francisco.......	37 47	122 26	150?	......	......	......	......	......	......	......	......	......

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1847.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
54.44	47.23	37.75	45.73	70.76	55.64	34.27	51.60	92	14	40.4	37.6	New York.
51.40	46.04	37.90	48.34	72.92	54.06	33.97	52.32	94	12	41.7	40.3	New York.
50.48	45.45	35.77	45.34	71.07	53.10	30.96	50.12	90	1	39.9	49.1	New York.
47.10	44.03	32.30	43.55	70.76	51.16	26.67	48.03	96	—14	48.0	62.0	New York.
49.41	42.12	33.10	49.98	69.37	51.18	31.88	50.60	93	— 3	42.4	53.6	Pennsylvania.
55.79	49.21	37.94	52.64	74.29	57.78	33.72	54.61	98	10	43.4	44.6	Pennsylvania.
60.50	53.02	43.88	54.05	74.25	61.17	43.24	58.18	94	15	35.8	43.2	Virginia.
66.66	60.51	53.80	63.45	80.68	67.90	53.44	66.37	90	21	23.6	45.4	South Carolina.
74.70	67.83	55.70	70.83	80.98	73.84	60.58	71.56	96	32	24.4	39.6	Tampa Bay, Florida.
....	....	....	66.26	....	....	....	....	....	18	....	....	Pensacola, Florida.
66.30	57.84	47.11	65.87	77.37	65.20	49.84	64.57	94	21	29.4	43.6	Near Mobile, Alabama.
71.16	64.37	53.25	69.98	81.08	71.13	55.13	69.33	94	27	24.7	42.3	Louisiana.
....	....	....	....	80.36	....	....	....	96	20	....	....	Louisiana.
65.52	51.16	44.00	60.96	78.10	63.38	41.81	61.06	98	10	37.0	51.0	Indian Territory.
62.34	47.75	42.40	59.80	76.48	60.37	38.87	56.38	94	10	37.6	46.4	Arkansas.
61.56	52.57	41.16	59.56	75.06	61.47	39.15	58.81	91	6	32.2	52.8	Indian Territory.
56.27	41.35	33.89	52.21	73.07	55.00	29.97	52.56	93	— 4	40.4	56.6	Kansas.
....	....	31.64	....	....	....	....	....	94	4	....	....	Missouri.
52.88	43.13	31.30	52.30	75.11	54.61	29.78	50.45	98	— 2	47.5	52.5	Missouri.
55.04	46.52	33.67	....	....	57.36	....	....	88	2	....	....	Newport, Kentucky.
43.69	32.60	22.57	32.87	59.83	42.83	17.09	38.16	86	—16	47.8	52.2	Michigan.
44.25	32.85	22.10	35.42	61.69	43.94	15.92	39.24	93	—16	53.8	55.2	Michigan.
46.66	30.45	16.36	40.90	67.96	45.03	13.43	41.83	93	—24	51.2	65.8	Minnesota.
55.70	38.24	30.00	47.43	71.66	53.19	26.47	49.69	96	—10	46.3	59.7	Kansas.
76.32	70.25	61.37	75.78	84.93	75.82	61.34	74.47	98	31	23.5	43.5	Lower Rio Grande, Mexico.
77.00	74.53	71.52	....	80.24	77.18	....	....	85	58	....	....	Mexico.
57.91	52.40	50.60	....	58.60	56.82	....	....	90	32	....	....	Bay of Monterey, California.
....	....	60.87	....	....	....	....	....	82	42	....	....	Southern California.
57.55	50.23	50.79	....	....	....	....	....	72	39	....	....	California, (Presidio, S. Francisco.)

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1847.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Hamilton	5.04	7.05	5.04	0.71	1.63	8.37	4.32	3.30	10.60	4.28	5.20	7.18	7.38	15.99	20.05	19.27	62.69
Fort Columbus	4.62	5.74	8.48	1.53	2.18	6.78	1.62	6.93	12.20	2.13	6.29	6.35	12.16	15.33	20.62	16.71	64.82
West Point	4.01	6.22	3.49	0.79	2.70	2.27	2.52	2.20	3.58	1.97	1.80	3.50	6.98	6.99	7.35	13.73	35.05
Watervliet Arsenal	1.84	1.38	2.50	2.23	2.45	3.82	6.01	1.74	3.06	3.16	1.97	1.64	7.18	11.57	8.19	5.86	32.80
Alleghany Arsenal	3.01	2.86	3.47	2.55	3.64	5.32	4.18	3.26	3.92	4.76	4.27	4.98	9.66	12.76	12.95	10.85	46.32
Fort McHenry	2.92	3.42	2.38	0.41	1.19	3.36	2.51	2.97	5.55	3.38	2.54	2.38	3.98	8.84	11.47	8.72	33.01
Fort Monroe	2.75	2.65	5.05	1.86	3.62	4.07	3.47	8.93	7.87	1.92	4.10	2.64	10.53	16.47	13.89	8.04	48.93
Fort Moultrie	1.69	0.20	7.66	1.52	9.45	5.50	13.25	14.70	6.64	0.00	0.45	4.25	18.63	33.45	7.09	6.14	65.31
Fort Brooke	2.24	3.25	4.38	1.61	1.00	4.68	7.22	4.80	10.23	2.01	0.28	4.50	6.99	16.70	12.52	9.99	46.20
Fort Barrancas	4.78	8.98	10.95	5.85	8.90	....	....	....	....	....	....	....	25.70	....	....	....	....
Mount Vernon Arsenal	6.82	7.70	6.45	3.77	3.94	4.05	11.92	7.39	5.85	0.42	4.10	9.01	14.16	23.36	10.37	23.53	71.42
New Orleans Barracks	7.71	3.77	3.40	4.63	4.80	3.43	5.06	6.81	2.83	0.75	2.59	7.73	12.83	15.30	6.17	19.21	53.51
Baton Rouge Barracks	11.60	....	....	....	....	2.30	3.30	4.20	....	....	....	....	....	9.80	....	....	....
Fort Washita	1.28	4.10	3.61	1.60	3.05	3.09	6.55	5.85	2.40	0.41	4.65	0.86	8.26	15.49	7.46	6.24	37.45
Fort Smith	0.98	1.73	5.56	3.22	3.80	5.95	11.18	6.40	0.76	1.26	7.05	1.15	12.58	23.53	9.17	3.86	49.14
Fort Gibson	0.10	2.12	1.42	3.10	1.35	3.88	1.89	1.78	0.95	3.10	3.35	1.06	5.87	7.55	7.40	3.28	24.10
Fort Scott	1.25	1.24	1.10	4.22	3.12	4.63	5.84	1.79	1.50	2.48	5.56	1.61	8.44	12.26	9.54	4.10	34.34
Jefferson Barracks	....	....	3.12	....	....	4.10	4.47	....	0.85	....	....	0.23	....	....	....	....	....
St. Louis Arsenal	1.79	3.09	4.34	8.25	5.95	11.47	5.30	0.74	2.87	10.07	10.05	1.14	18.54	17.51	22.99	6 02	65.06
Fort Mackinac	1.28	0.81	1.16	1.48	4.03	2.97	2.18	1.82	3.40	0.34	3.10	0.58	6.67	6.97	6.84	2.67	23.15
Fort Brady	1.50	0.80	1.00	2.00	3.00	3.35	3.79	3.83	5.71	1.20	2.62	2.83	6.00	10.97	9.53	5.13	31.63
Fort Snelling	0.29	0.11	0.44	0.45	4.96	2.66	3.66	2.49	4.00	0.37	1.71	0.66	5.85	8.81	6.08	1.06	21.80
Fort Leavenworth	0.69	1.30	0.48	2.79	7.18	5.15	1.20	0.50	0.32	0.00	0.27	1.15	10.45	6.85	0.59	3.14	21.03?
Vera Cruz	....	....	....	....	....	4.15	16.70	9.50	3.95	4.05	0.54	0.50	....	30.35	8.54	....	....
Los Angeles	....	....	....	....	....	0.01	0.03	....	....	....	....	....	....	....	....	....	....
Monterey	....	....	....	....	0.01	0.00	0.00	0.00	0.00	1.10	3.10	0.01	....	0.00	4.20	....	....

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	E.	S.	S. W.	W.	N. W.
Fort Hamilton.......	209	156	79	17	32	66	27	16	31	82	25	85
Fort Columbus.......	195	170	105	19	16	62	7	44	16	85	5	128
West Point..........	179	186	78	14	29	47	9	59	32	45	47	120
Alleghany Arsenal...	156	209	125	14	65	38	37	14	35	45	70	61
Fort McHenry.......	167	198	94	13	20	77	14	68	22	62	38	63
Fort Monroe.........	188	177	107	7	16	63	59	47	17	64	44	50
Fort Moultrie........	273	92	77	0	58	48	35	36	66	35	61	24
Fort Brooke.........	196	169	77	0	22	54	70	59	56	38	41	25
Fort Barrancas (*a*)...	107	44	36	0	21	11	26	15	25	17	16	13
Mt. Vernon Arsenal..	195	170	104	0	29	74	21	62	28	56	12	78
New Orleans Barracks	184	181	80	0	47	35	42	24	101	38	45	32
Fort Washita........	263	102	72	5	109	25	38	19	127	11	23	12
Fort Smith..........	222	143	79	1	60	15	135	3	53	18	71	8
Fort Gibson.........	273	92	56	9	15	61	24	98	99	32	9	26
Fort Scott...........	180	185	66	19	67	36	36	34	84	38	38	31
St. Louis Arsenal....	238	127	71	4	55	46	43	50	44	39	47	41
Fort Mackinac.......	146	219	61	26	40	58	33	35	27	41	50	165
Fort Brady..........	211	154	84	33	32	33	81	36	19	37	69	58
Fort Snelling........	109	256	53	19	30	67	43	105	75	127	154	25
Fort Leavenworth....	260	105	37	16	12	25	7	41	100	66	20	93
Matamoros..........	265	100	47	1	74	27	200	14	39	3	3	4
Vera Cruz (*b*)........	121	93	73	0	75	10	22	25	9	3	19	4
Monterey (*c*)........	136	109	15	0	12	30	3	4	2	36	18	138

(*a*) First five months.

(*b*) Observations for the last seven months.

(*c*) Observations for the last eight months.

OBSERVATIONS FOR 1847.

WINDS.

No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
130	390	263	701	109	230	63	117	123	266	330	703	101	372	341	1097
65	103	247	447	30	56	178	339	66	144	340	508	22	110	512	1056
118	251	188	188	38	54	238	338	130	233	179	229	188	319	481	897
262	341	151	216	150	157	55	95	140	185	179	348	280	572	243	666
81	131	308	564	56	56	274	308	89	142	247	428	152	371	253	585
66	145	251	666	237	613	190	438	70	131	257	535	177	456	200	513
232	443	194	383	139	279	146	296	266	514	139	265	246	425	97	174
88	216	218	436	279	578	235	402	224	401	151	306	163	290	102	255
85	127	43	61	102	145	60	117	98	146	68	129	66	93	53	100
117	225	298	298	86	86	249	249	111	115	226	282	49	53	314	493
189	231	139	161	170	170	96	108	404	431	151	168	182	182	129	154
437	615	100	133	153	186	75	123	510	973	43	67	92	132	50	87
242	304	62	62	541	541	11	12	213	214	71	76	286	286	34	49
62	104	244	356	98	122	391	558	397	628	127	165	38	46	103	159
270	519	144	257	143	195	137	237	338	853	151	336	153	270	124	238
221	294	184	211	171	178	201	225	176	194	155	208	187	303	165	256
160	409	232	656	132	410	141	419	108	302	166	508	200	617	660	991
127	217	133	223	325	624	145	299	75	121	148	317	276	658	231	660
119	279	269	473	171	249	420	550	302	302	508	508	617	617	99	300
47	63	102	123	28	36	165	231	400	543	263	457	80	107	373	583
296	573	109	232	802	1667	55	148	156	347	14	24	13	25	15	32
298	700	40	91	88	202	101	208	35	58	11	18	77	96	17	28
49	67	120	147	12	23	15	26	6	14	142	256	74	140	553	1025

MONTH OF JANUARY, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	32.58	33.25	37.96	34.03	35.67	48	5	12.3	30.7	16	51	20	51	5	11
Fort Columbus	30.54	34.00	37.22	33.32	33.79	50	3	16.2	30.8	17	33	20	38	4	4
West Point	29.12	32.29	35.80	32.41	32.40	48	0	15.6	32.4	17	45	4	6	0	0
Watervliet Arsenal	26.17	29.70	34.17	30.20	30.06	58	—17	27.9	47.1	..	..	..	..	..	..
Alleghany Arsenal	29.61	33.00	40.41	31.51	33.63	60	8	26.4	25.6	6	13	9	9	12	12
Carlisle Barracks	27.61	31.58	36.19	30.64	31.50	46	3	14.5	28.5	4	7	5	8	42	39
Fort McHenry	33.87	36.41	44.12	35.61	37.50	59	12	21.5	25.5	16	62	1	4	0	0
Fort Monroe	38.67	40.09	46.19	40.87	41.45	62	18	20.5	23.5	15	31	36	87	8	12
Fort Moultrie	44.35	48.45	56.12	51.16	50.02	68	30	18.0	20.0	34	70	7	11	16	31
Fort Brooke	60.61	61.40	70.50	60.72	63.31	79	42	15.7	21.3	4	6	20	47	43	78
Mount Vernon Arsenal	45.80	51.22	63.51	51.41	52.98	74	26	21.0	27.0	15	20	18	19	5	10
New Orleans Barracks	52.15	60.44	64.71	55.43	58.18	78	31	19.8	27.2	13	26	6	9	27	29
Fort Washita	39.77	44.80	56.58	48.61	47.44	79	10	31.6	37.4	32	37	5	7	11	11
Fort Smith	37.03	41.67	56.48	44.32	44.87	80	14	35.1	30.9	19	34	5	6	55	58
Fort Gibson	40.51	43.04	55.12	44.67	45.83	77	10	31.2	35.8	9	21	17	36	0	0
Fort Scott	29.96	36.61	47.45	35.61	37.41	62	— 2	24.6	44.4	17	40	13	17	8	8
Jefferson Barracks	33.00	37.83	45.58	37.55	38.49	63	— 5	24.5	43.5	21	49	17	43	13	45
St. Louis Arsenal	29.22	35.22	42.83	35.00	35.57	58	— 4	22.4	39.6	16	17	16	18	13	13
Newport Barracks	33.29	36.58	40.61	36.58	36.76	57	— 9	20.2	45.8	0	..	4	..	0	..
Fort Mackinac	20.10	21.14	22.10	20.12	20.86	38	—15	17.1	35.9	6	19	13	44	4	13
Fort Brady	15.25	18.26	21.40	19.22	18.53	42	—21	23.5	39.5	20	42	8	11	36	49
Fort Snelling	12.45	14.45	23.41	17.44	16.94	40	—24	23.1	40.9	0	0	0	0	1	2
Fort Leavenworth	27.54	31.90	39.25	33.16	32.96	54	8	21.0	25.0	13	22	14	19	4	6
Matamoros	51.54	65.51	69.58	65.09	65.43	78	44	12.6	21.4	30	55	21	38	8	13
Vera Cruz	72.93	74.45	75.51	74.71	74.40	82	70	7.6	4.4	11	25	11	27	16	19
Los Angeles	53.12	58.16	66.03	58.00	58.83	70	44	11.2	14.8	39	44	1	1	30	37
Monterey	45.10	53.90	58.50	50.00	51.38	72	34	20.6	17.4	0	0	6	6	0	0
San Francisco	46.10	....	52.71	49.17	49.33	61	40	11.7	9.3	..	..	..	..	..	..

MONTH OF JANUARY, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	19	13	33	17	55	11	47	31	141	4.61	4.83	4.67	4.67	4.69	14	17	3	0	2.20	
15	26	6	9	13	35	12	24	37	154	5.29	5.41	4.93	5.35	5.24	18	13	8	0	1.75	
14	19	27	40	10	18	6	25	46	127	4.00	4.03	3.38	4.77	4.04	10	21	5	3	1.87	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	13	5	2	2.02	
9	9	16	18	11	23	36	72	25	71	3.61	3.30	5.09	6.03	4.48	14	17	4	2	1.31	
3	3	17	18	3	5	38	63	12	18	4.20	5.80	4.18	4.22	4.60	16	15	4	0	....	
19	20	11	12	19	20	27	75	11	30	3.48	3.22	3.51	5.16	3.84	12	19	8	0	1.58	
8	10	13	13	5	8	15	23	24	64	4.03	3.93	5.93	6.16	5.51	15	16	4	0	0.77	
20	38	24	49	3	6	13	30	7	14	8.38	7.35	7.35	6.87	7.48	25	6	1	0	0.75	
10	21	11	22	4	9	11	22	10	19	3.44	4.80	4.71	5.20	4.54	14	17	3	0	0.36	
24	24	16	21	18	16	3	5	25	38	4.41	4.48	4.38	6.51	4.94	16	15	5	0	3.90	
7	8	29	34	2	3	29	42	5	8	1.76	3.29	3.22	7.21	3.87	12	19	4	0	5.42	
5	6	50	82	6	8	10	10	5	6	5.58	5.48	6.45	7.16	6.19	20	11	3	0	1.38	
0	0	8	8	12	13	25	26	0	0	4.74	5.41	5.06	7.41	5.65	21	10	4	0	2.88	
22	30	32	62	33	53	3	7	8	13	3.09	6.09	6.51	7.48	5.79	21	10	4	0	1.05	
10	17	33	71	18	22	20	36	15	26	4.35	4.70	4.45	5.87	4.84	16	15	3	1	0.94	
26	83	14	34	5	11	4	12	24	51	5.45	5.32	5.83	5.93	5.63	19	12	1	1	1.83	
12	13	8	8	16	14	28	34	15	27	5.90	6.54	6.22	6.80	6.38	20	11	2	1	0.96	Weather obs. inac.
12	..	4	..	104	..	0	..	0	..	....	....	....	....	....	12	19	4	2	....	Weather obs. inac.
12	44	21	63	16	55	9	36	31	113	3.80	3.13	3.26	3.13	3.44	11	20	0	6	1.30	Therm. protected.
21	25	14	16	4	7	10	22	7	16	2.80	3.20	2.22	1.21	2.36	7	24	0	14	1.92	
43	61	0	0	27	29	9	23	44	84	2.74	3.54	4.45	2.74	3.36	8	23	3	2	0.62	
21	28	32	41	21	36	14	36	4	6	5.64	6.29	6.48	7.64	6.26	19	12	2	1	1.45	
13	24	48	80	2	3	0	0	0	0	3.41	4.03	3.90	5.80	4.28	12	19	9	0	....	
7	14	11	15	3	3	5	9	4	7	7.71	7.90	8.55	8.61	8.20	26	5	2	0	0.20	
0	0	9	12	0	0	39	45	3	8	4.50	5.20	6.00	6.00	5.42	13	18	10	0	....	
5	10	8	28	36	62	7	7	55	92	7.20	7.30	6.50	6.30	6.83	22	9	9	0	1.90	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	16	15	9	0	....	Observations at 2 p. m.

MONTH OF FEBRUARY, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	27.89	29.31	36.13	31.24	31.14	49	10	17.9	21.1	11	33	11	40	0	0
Fort Columbus	27.10	31.79	35.62	30.34	31.21	48	10	16.8	21.2	14	31	18	38	8	23
West Point	24.06	30.24	32.48	28.17	28.74	48	7	19.3	21.7	40	141	6	16	1	1
Watervliet Arsenal	17.90	22.91	29.31	23.80	23.48	44	— 5	20.5	28.5	..	..	..	..	..	..
Alleghany Arsenal	26.96	31.44	37.41	30.17	31.49	59	10	27.5	21.5	33	35	18	18	10	11
Carlisle Barracks	25.68	31.41	37.24	28.87	30.80	47	14	16.2	16.8	13	33	6	7	22	32
Fort McHenry	32.13	35.03	43.65	33.86	36.17	52	24	15.8	12.2	15	15	10	18	0	0
Fort Monroe	36.96	38.34	44.48	39.38	39.79	56	22	16.2	17.8	6	22	35	66	19	31
Fort Moultrie	46.65	49.31	54.72	50.00	50.17	67	32	16.8	18.2	35	90	4	8	15	28
Fort Brooke	54.40	63.46	70.93	60.90	62.42	79	32	16.6	30.4	2	5	10	19	18	34
Mount Vernon Arsenal	49.62	56.20	66.44	54.20	56.61	84	28	27.4	28.6	21	30	7	17	1	2
New Orleans Barracks	56.96	62.67	65.89	61.18	61.67	77	36	15.3	25.7	11	17	5	7	13	15
Fort Washita	43.75	50.00	62.13	51.00	51.72	80	26	28.3	25.7	50	63	3	4	9	10
Fort Smith	40.27	45.24	59.51	47.27	48.07	82	24	33.9	24.1	15	25	0	0	58	60
Fort Gibson	43.05	47.20	58.56	48.62	49.11	80	22	30.9	27.1	8	12	7	16	2	6
Fort Scott	32.03	41.44	49.96	35.31	39.68	70	12	30.3	27.7	18	27	16	35	11	21
Jefferson Barracks	34.98	40.13	54.99	41.86	42.99	78	14	35.0	29.0	7	14	6	16	1	2
St. Louis Arsenal	31.17	37.53	45.10	37.79	37.90	66	10	28.1	27.9	11	16	15	18	16	16
Newport Barracks	33.37	36.03	40.68	37.93	37.00	58	18	21.0	19.0	0	..	17	..	0	..
Fort Mackinac	17.23	20.15	25.23	20.17	20.69	40	— 4	19.3	24.7	11	41	21	67	6	16
Fort Brady	15.40	22.10	29.50	20.21	21.80	47	— 5	25.2	26.8	7	20	11	12	23	21
Fort Snelling	13.75	17.20	26.79	20.10	17.46	44	—11	24.5	30.5	0	..	13	21	0	0
Fort Leavenworth	24.20	35.55	45.62	36.03	35.35	66	9	30.6	26.4	2	3	7	13	8	13
Matamoros	61.79	65.96	71.31	65.62	66.17	86	43	19.8	23.2	16	25	18	32	14	21
Los Angeles	49.40	54.60	63.10	53.40	55.12	77	38	21.9	17.1	46	55	5	5	6	8
Monterey	40.30	46.60	55.10	44.50	46.62	64	34	17.4	12.6	0	0	6	11	4	8
San Francisco	47.17	......	54.29	50.00	50.49	64	38	13.5	12.5	..	..	..	..	..	..

MONTH OF FEBRUARY, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	9	6	12	11	26	14	53	59	135	6.68	6.13	5.13	7.10	6.26	20	9	3	2	1.17	
4	7	4	11	3	8	18	41	47	169	6.27	5.79	5.48	5.93	5.88	18	11	4	3	1.68	
3	8	7	14	8	16	10	33	41	146	4.71	5.46	5.25	6.75	5.54	17	12	4	4	3.98	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	15	14	3	7	2.27	
5	5	1	4	0	0	18	39	31	95	3.41	3.96	4.20	4.12	3.92	13	16	3	3	0.50	
4	4	9	17	2	2	50	138	10	34	5.24	5.65	5.86	6.93	5.92	19	10	2	..	....	
16	18	0	0	8	15	50	77	20	65	4.72	3.72	3.48	6.65	4.64	13	16	3	1	0.94	
1	1	2	2	7	8	25	59	21	60	3.41	3.42	3.44	5.62	3.97	11	18	1	2	3.20	
7	14	20	49	2	4	16	31	17	51	5.86	5.58	5.37	5.86	5.66	18	11	3	0	5.85	
11	14	15	33	20	42	13	28	15	36	3.80	4.30	5.50	5.70	4.83	11	18	2	0	0.21	
10	15	33	43	13	20	8	7	23	47	2.96	3.17	4.86	4.75	3.93	9	20	7	0	5.17	
9	12	31	43	7	10	23	27	6	7	1.93	3.35	4.45	5.18	3.73	13	16	6	0	1.28	
10	18	29	50	2	2	10	12	3	3	4.00	5.55	6.29	7.24	5.77	16	13	4	0	1.54	
0	0	10	11	2	5	26	34	5	8	4.65	5.00	5.10	5.93	5.17	16	13	2	0	1.00	
11	24	22	30	51	106	9	12	6	15	4.10	6.10	6.07	7.10	5.84	19	10	3	0	0.20	
8	22	10	17	13	31	19	35	21	30	3.37	3.17	3.37	3.27	3.29	11	18	2	1	0.25	
16	30	23	61	36	97	6	19	17	43	4.16	4.53	4.41	6.73	4.98	15	14	7	0	0.92	
12	14	12	15	12	20	25	63	13	15	4.68	6.17	6.82	5.96	5.90	18	11	5	0	2.96	
8	..	0	..	79	..	0	..	12	..	....	....	....	....	....	..	..	4	3	....	Weather obs. inac.
9	31	9	26	12	37	13	47	30	122	4.21	5.00	5.00	4.26	4.66	13	16	0	5	0.82	Therm. protected
10	12	6	7	13	19	19	30	19	37	4.12	5.30	4.17	4.15	4.43	11	18	1	8	1.83	
30	45	3	3	21	27	10	17	39	62	3.44	3.51	4.13	2.65	3.43	9	20	2	4	1.13	
12	19	20	40	23	36	23	37	21	49	5.58	6.75	7.24	7.51	6.77	20	9	3	2	1.40	
26	75	11	19	12	30	5	8	7	16	4.24	4.00	4.03	4.34	4.15	12	17	5	0	....	
2	3	5	9	7	14	38	50	5	9	5.60	5.50	6.30	6.50	5.98	20	9	5	0	....	
17	51	0	0	12	18	14	33	59	105	6.00	6.20	4.60	5.00	5.45	14	15	8	0	2.20	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	12	17	9	1	....	Observ'ns at 2 p. m.

MONTH OF MARCH, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	31.61	33.80	40.74	35.19	35.33	58	10	22.7	25.3	4	9	14	34	14	27
Fort Columbus	30.90	35.93	42.32	35.42	36.14	60	11	23.9	25.1	6	19	28	61	2	5
West Point	28.41	33.48	40.80	34.74	34.36	64	8	29.6	26.4	27	67	4	10	0	0
Watervliet Arsenal	24.71	30.32	38.23	33.81	31.77	66	2	34.2	29.8	..	..	..	..	..	..
Alleghany Arsenal	29.51	35.96	44.54	35.48	36.37	82	8	45.6	28.4	35	49	13	18	9	11
Carlisle Barracks	28.74	36.83	42.74	34.93	35.81	75	8	39.2	27.8	7	20	4	9	33	44
Fort McHenry	35.03	39.80	48.41	39.67	40.73	74	15	33.3	25.7	7	14	18	19	8	31
Fort Monroe	40.09	42.20	51.35	45.64	47.49	78	18	30.5	29.5	7	12	18	36	18	36
Fort Moultrie	57.09	59.45	63.35	58.19	59.52	71	49	11.5	10.5	13	28	18	38	25	57
Fort Brooke	56.70	68.27	76.60	68.25	67.45	87	35	19.5	32.5	6	15	10	23	27	60
Mount Vernon Arsenal	52.40	62.35	69.67	57.35	60.44	86	32	25.6	28.4	16	16	19	20	3	6
New Orleans Barracks	58.47	66.16	69.55	63.36	64.38	79	43	15.6	21.4	15	24	0	0	12	13
Fort Washita	45.41	52.74	65.67	60.00	55.95	82	10	26.0	46.0	45	67	3	3	7	9
Fort Smith	43.90	49.41	64.51	53.93	52.69	84	8	21.3	44.7	21	46	11	21	51	59
Fort Gibson	44.82	50.61	63.15	53.94	53.13	80	7	26.9	46.1	15	37	8	16	0	0
Fort Scott	34.35	46.09	57.61	42.80	45.21	81	—10	35.8	55.2	28	52	9	17	18	36
Jefferson Barracks	36.61	42.54	48.70	41.83	42.42	75	0	32.6	42.4	16	30	20	44	4	9
St. Louis Arsenal	33.16	41.16	51.93	42.38	42.16	70	0	27.8	42.8	9	23	15	26	13	20
Newport Barracks	37.48	42.22	49.41	43.90	43.25	80	6	36.7	37.3	..	..	..	..	..	..
Fort Mackinac	20.90	23.60	28.10	20.25	23.21	42	— 5	18.8	28.2	8	29	17	59	9	36
Fort Brady	17.60	26.10	32.25	24.60	25.14	52	—13	26.9	38.1	9	12	4	4	31	44
Fort Snelling	22.35	27.22	34.93	28.38	28.22	64	—10	35.8	38.2	3	7	11	21	5	7
Fort Leavenworth	33.74	41.22	48.06	39.67	40.67	76	10	35.3	30.7	14	50	4	9	12	24
Matamoros	64.51	70.12	75.38	68.45	69.61	86	44	16.4	25.6	20	49	1	2	25	45
Vera Cruz	73.16	74.45	75.40	74.27	74.32	80	69	5.7	5.3	21	50	1	2	16	18
Los Angeles	50.16	58.60	68.06	56.50	58.33	82	38	23.7	20.3	28	31	2	2	5	8
Monterey	43.80	51.30	58.90	46.60	50.15	67	36	16.8	14.2	4	7	2	6	0	0
San Francisco	48.00	....	56.00	49.70	51.23	73	39	21.8	12.2	..	..	..	..	..	..

MONTH OF MARCH, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	7	16	47	22	54	5	28	46	211	6.00	5.45	4.51	6.22	5.29	18	13	3	1	1.84	
7	15	8	26	16	34	20	55	37	129	5.03	4.74	4.84	6.00	5.12	17	14	5	1	2.23	
8	16	26	70	5	11	1	2	53	157	4.48	4.61	3.87	5.19	4.53	15	16	10	4	2.71	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	4	4	3.22	
2	2	7	23	13	29	15	33	30	81	3.90	4.00	3.54	5.16	4.15	13	18	4	2	3.20	
8	16	10	30	4	11	42	109	16	44	5.61	6.51	6.41	6.58	6.27	20	11	4	2	....	
4	16	18	52	15	24	8	11	36	126	3.74	3.80	3.74	4.75	4.00	12	19	4	1	2.70	
9	17	6	16	25	51	14	27	27	78	4.70	4.67	5.16	6.80	5.33	18	13	6	0	3.18	
16	31	12	25	12	24	19	44	9	18	6.77	7.93	7.74	7.87	7.57	20	11	4	0	1.75	
10	17	22	45	8	20	12	25	10	25	5.70	6.23	5.40	6.25	5.89	19	12	1	0	0.05	
7	9	48	91	6	10	4	6	21	42	3.00	3.67	4.90	5.74	4.32	11	20	7	0	3.50	
11	15	33	42	7	10	25	31	2	3	1.39	3.60	4.04	5.06	3.52	12	19	5	0	1.97	
5	7	49	109	5	13	8	10	2	6	3.74	5.67	6.83	7.16	8.85	21	10	5	0	1.70	
2	2	10	22	8	18	17	25	4	5	5.37	5.45	6.06	7.12	6.25	19	12	8	0	3.74	
2	3	28	71	50	134	7	18	14	34	3.77	6.12	6.64	7.28	5.97	20	11	5	0	3.12	
13	31	35	133	10	35	2	3	9	16	2.83	4.35	5.25	5.70	4.54	15	16	3	4	2.53	
18	51	14	36	18	46	11	26	23	38	4.87	4.45	4.93	5.96	5.05	17	14	2	1	1.94	
15	16	19	21	21	37	23	46	9	11	5.61	6.11	6.38	5.80	5.97	20	11	5	3	5.56	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	7	2	....	Weather obs. inac. Therm. protected.
30	112	7	24	1	4	15	57	26	104	4.29	4.30	5.10	4.26	4.49	16	15	3	3	0.83	
15	21	2	2	12	34	21	37	19	36	5.30	5.29	5.28	5.10	5.29	17	14	3	6	0.97	
34	54	7	8	19	36	0	0	45	100	3.12	3.51	3.54	2.96	3.28	11	20	3	5	1.71	
23	50	30	82	15	23	18	43	8	16	5.96	6.96	7.35	6.25	6.38	18	13	2	3	1.50 ?	Inaccurate.
16	53	43	98	7	20	4	4	3	12	4.03	4.58	5.80	5.96	5.09	17	14	6	0	....	
0	0	22	28	0	0	5	8	0	0	8.15	8.45	7.71	7.49	7.95	27	4	4	0	0.47	
1	2	18	34	10	23	45	73	1	3	6.00	6.40	6.40	6.70	6.38	25	6	2	0	....	
10	19	8	19	18	33	15	27	50	96	5.30	6.00	6.20	5.50	5.75	17	14	12	0	2.40	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	21	10	4	1	....	Observ'ns at 2 p. m.

MONTH OF APRIL, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	44.03	47.70	55.83	46.80	48.59	64	33	15.4	15.6	7	24	13	49	13	42
Fort Columbus	43.70	51.40	56.76	48.53	50.10	72	32	21.9	18.1	5	15	14	42	4	8
West Point	40.30	48.56	56.83	48.40	48.52	74	28	25.5	20.5	35	108	10	27	0	0
Watervliet Arsenal	38.67	47.03	57.37	46.96	47.51	76	28	28.5	19.5	..	..	..	..	..	..
Alleghany Arsenal	38.13	48.23	60.80	47.86	48.75	74	27	25.2	21.8	26	39	19	34	8	8
Carlisle Barracks	41.56	54.70	60.33	49.06	51.41	75	32	23.6	19.4	9	27	0	0	26	38
Fort McHenry	48.76	56.50	67.30	55.10	56.91	82	35	25.1	21.9	17	39	7	13	3	4
Fort Monroe	50.93	54.66	60.80	53.86	55.06	80	38	24.9	17.1	6	12	28	67	23	54
Fort Moultrie	62.36	65.53	70.16	66.16	66.05	78	54	11.9	12.1	19	41	30	54	0	0
Fort Brooke	63.30	73.13	79.27	69.57	71.32	86	52	14.7	19.3	4	8	9	22	18	40
Mount Vernon Arsenal	55.93	65.60	74.76	61.73	64.50	84	42	19.5	22.5	21	22	18	22	13	13
New Orleans Barracks	62.41	70.24	74.04	66.87	68.39	81	52	12.6	16.4	11	15	3	3	10	10
Fort Washita	52.10	58.06	65.16	59.06	58.59	82	40	23.4	18.6	54	63	10	12	13	15
Fort Smith	51.06	57.46	68.86	61.06	59.61	86	34	26.4	15.6	27	28	1	2	58	61
Fort Gibson	50.89	52.92	64.90	60.50	57.30	81	39	23.7	18.3	7	21	6	19	10	18
Fort Scott	44.03	55.30	63.76	52.16	53.81	80	31	26.2	22.8	31	54	25	48	12	17
Jefferson Barracks	46.26	56.36	67.51	56.30	56.61	82	30	25.4	26.6	13	37	8	22	4	11
St. Louis Arsenal	41.80	49.00	62.26	51.26	51.08	78	34	26.9	17.1	11	21	21	26	5	10
Newport Barracks	47.43	54.96	62.60	57.16	55.54	80	34	24.5	21.5	7	..	19	..	17	..
Fort Mackinac	32.75	38.25	42.14	36.10	37.31	59	21	21.7	16.3	6	23	17	64	5	21
Fort Brady	31.00	41.17	47.10	37.19	39.11	72	19	32.9	20.1	1	2	10	14	23	28
Fort Snelling	35.93	44.70	53.93	44.60	44.79	76	20	31.2	24.8	3	5	14	26	2	3
Fort Leavenworth	43.53	53.46	61.90	51.93	52.70	80	29	27.3	23.7	25	42	7	11	13	20
Matamoros	68.16	72.00	76.30	71.66	72.03	83	52	11.0	20.0	16	24	10	22	27	55
Vera Cruz	74.00	77.90	78.90	76.00	76.70	85	67	8.3	9.7	17	29	0	0	22	25
Monterey	48.60	53.60	59.30	49.80	52.82	76	42	23.2	10.8	1	1	0	0	0	0

MONTH OF APRIL, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	10	14	35	29	81	6	29	34	121	6.43	6.20	6.00	7.60	6.55	21	9	4	1	1.75	
19	43	3	5	30	67	11	22	34	81	6.02	6.02	6.76	7.13	6.28	23	7	5	1	1.16	
11	25	24	67	12	21	0	0	28	68	5.56	5.33	5.36	6.66	5.72	19	11	7	1	2.90	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	8	0	1.40	
2	2	9	20	8	24	30	39	18	34	6.00	6.30	5.86	6.86	6.25	18	12	5	1	2.45	
5	13	12	21	2	9	48	87	18	52	7.30	8.33	8.76	8.83	8.05	20	10	4	0	0.95	Inaccurate.
31	46	9	39	14	35	5	9	34	75	3.83	5.13	5.23	7.06	5.31	16	14	4	0	0.81	
11	34	6	14	16	36	19	48	16	36	4.76	4.80	4.63	6.80	5.24	15	15	5	0	1.39	
4	5	10	21	21	44	20	40	16	35	8.33	7.60	7.80	8.33	8.01	20	10	4	0	3.80	
23	51	16	32	8	15	12	32	6	14	5.47	5.53	4.93	6.13	5.69	20	10	5	0	1.23	
19	41	24	38	1	1	7	13	10	17	4.40	5.46	5.00	7.23	5.54	18	12	7	0	2.78	
28	39	32	36	3	4	14	16	4	5	3.00	3.60	4.78	7.25	4.66	14	16	5	0	3.92	
10	15	30	41	0	0	2	2	1	1	4.40	5.20	5.20	5.50	5.07	15	15	6	0	7.91	
0	0	11	10	1	2	20	21	2	3	4.60	4.66	4.03	4.10	4.34	15	15	7	0	5.64	
0	0	10	39	46	103	17	28	29	84	5.40	5.56	5.90	5.86	5.68	16	14	10	0	5.21	
9	23	22	48	15	36	2	3	4	10	3.83	3.36	3.86	4.56	3.90	10	20	4	0	1.96	
17	37	27	85	28	85	7	19	17	35	5.03	6.06	5.70	6.16	5.73	20	10	8	0	1.50	
14	17	24	29	19	21	16	16	10	11	6.26	7.10	7.16	6.16	6.67	20	10	4	0	2.93	Observations inac.
2	..	13	..	19	..	25	..	18	..	....	....	....	....	....	..	..	3	1	....	Therm. protected.
16	64	9	31	17	64	17	65	29	120	6.80	5.29	6.18	6.19	6.12	20	10	4	1	1.36	
6	6	3	4	20	28	31	64	20	42	6.25	7.90	7.30	6.12	6.90	20	10	7	2	1.30	
29	47	11	19	19	46	6	9	36	77	5.00	5.06	5.26	3.30	4.65	17	13	2	2	0.18	
11	15	31	72	5	11	19	33	9	23	5.60	6.20	5.90	6.03	5.93	18	12	4	1	0.91?	Inaccurate.
32	85	9	26	2	2	8	13	7	14	4.30	3.06	3.76	3.00	3.53	9	21	12	0	....	Amount of rain great.
0	0	15	19	0	0	1	1	0	0	6.63	7.33	7.83	8.17	7.49	24	6	9	0	9.25	
0	0	7	24	24	48	29	41	38	61	3.50	5.20	5.50	5.60	4.95	15	15	8	0	0.70	

MONTH OF MAY, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	55.67	59.45	66.42	58.12	59.91	78	46	18.1	13.9	6	22	13	37	6	16
Fort Columbus	56.55	61.09	67.12	60.77	61.38	83	46	21.6	15.4	4	9	17	31	4	9
West Point	53.35	61.58	67.41	60.80	60.78	83	38	22.2	22.8	26	73	4	4	1	1
Watervliet Arsenal	55.58	62.64	69.64	60.15	62.00	84	36	22.0	26.0	..	..	..	..	..	..
Alleghany Arsenal	54.70	65.10	70.31	67.00	64.28	89	34	24.7	30.3	23	32	7	8	23	25
Carlisle Barracks	55.22	67.77	73.87	62.16	64.75	72	38	7.2	26.8	3	7	5	6	23	24
Fort McHenry	60.22	67.81	78.51	65.19	67.86	93	45	25.1	22.9	14	15	11	24	6	10
Fort Monroe	63.74	67.87	73.93	65.54	67.77	81	52	13.2	15.8	5	11	6	11	13	28
Fort Moultrie	......	......	......	......	......	....	....	......	......	16	32	9	13	29	51
Fort Brooke	69.00	79.00	84.00	74.0	76.50	90	55	13.5	21.5	1	2	3	5	22	40
Mount Vernon Arsenal	65.48	77.03	82.35	70.96	73.95	90	52	16.0	22.0	9	10	4	8	7	8
New Orleans Barracks	70.39	79.88	81.13	74.48	76.47	88	59	11.5	17.5	10	19	21	26	22	26
Fort Washita	65.48	76.22	81.12	76.48	74.82	90	49	15.2	25.8	12	14	4	4	11	12
Fort Smith	64.57	70.77	80.80	74.29	72.61	90	54	17.4	18.6	8	14	0	0	44	45
Fort Gibson	63.70	69.09	78.86	71.22	70.72	87	50	16.3	20.7	0	0	0	0	0	0
Fort Scott	59.70	69.48	77.48	67.45	68.53	89	41	20.5	27.5	9	14	27	48	9	16
Jefferson Barracks	61.90	68.90	76.09	67.42	68.58	88	52	19.4	16.6	6	12	29	59	2	4
St. Louis Arsenal	57.16	64.58	76.51	66.32	66.14	88	40	21.9	26.1	15	25	14	38	12	13
Newport Barracks	61.93	69.83	75.74	68.83	69.08	87	46	17.9	23.1	1	..	15	..	24	..
Fort Mackinac	42.48	49.17	53.20	47.70	48.14	70	33	21.9	15.1	13	22	17	29	7	14
Fort Brady	42.19	51.80	59.21	47.24	50.11	82	31	31.9	19.1	5	9	19	30	19	21
Fort Snelling	52.16	59.12	69.16	60.00	60.11	82	39	21.9	21.1	1	2	16	25	12	18
Fort Leavenworth	60.32	67.45	77.48	60.70	66.49	84	48	17.5	18.5	8	16	7	10	19	29
Matamoros	78.12	82.00	85.64	79.12	81.22	91	68	9.8	13.2	4	12	4	7	5	12
Vera Cruz	79.00	81.60	83.50	82.00	81.52	88	74	6.5	7.5	4	11	0	0	8	10
Monterey	51.49	55.42	60.89	53.20	55.25	73	45	17.7	10.3	0	0	2	2	0	0

MONTH OF MAY, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	30	26	55	39	102	5	23	13	60	5.16	4.74	4.45	5.12	4.86	15	16	13	0	9.32	
22	44	10	23	19	30	17	31	31	79	4.74	4.68	5.58	4.16	4.79	16	15	16	0	7.28	
19	45	39	88	12	25	1	4	22	65	3.29	3.61	2.83	3.58	3.32	9	22	16	0	7.15	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	16	15	13	0	6.61	
8	9	12	12	18	34	18	38	11	23	3.63	4.33	4.06	5.23	4.31	13	18	10	0	5.51	
10	15	13	28	2	6	60	114	8	24	6.25	6.77	7.54	7.93	7.12	20	11	10	0	2.25	
31	28	6	9	23	65	8	32	25	62	4.03	3.61	2.09	4.54	3.56	10	21	8	0	2.96	
27	63	3	5	28	68	27	67	15	42	4.90	4.61	4.51	4.77	4.69	13	18	11	0	3.68	
8	9	33	55	9	15	16	27	4	8	6.45	7.09	7.16	7.09	6.97	20	11	6	0	7.10	Temp. inaccurate.
19	45	21	48	9	21	18	43	12	31	4.70	5.40	5.10	5.83	5.26	20	11	7	0	2.30	
21	21	34	31	11	17	16	19	22	33	5.32	4.67	5.38	6.70	5.51	19	12	8	0	2.15	Weather obs. inac.
13	13	24	36	3	5	5	7	6	9	4.26	5.76	4.92	6.03	5.24	17	14	7	0	4.75	Observations omitted.
4	7	80	108	9	11	4	8	0	0	4.90	5.32	6.66	7.38	6.06	18	13	5	0	1.97	
2	2	18	25	4	4	47	48	1	4	4.54	4.74	5.58	5.06	4.98	17	14	9	0	5.92	
2	4	41	122	69	158	6	26	6	13	5.12	6.06	6.16	7.16	6.12	20	11	6	0	4.52	
17	30	28	67	21	74	9	14	5	7	4.12	4.12	4.22	5.16	4.40	14	17	13	0	7.33	
22	50	32	70	17	36	5	6	11	20	5.25	5.12	5.29	4.67	5.08	17	14	9	0	2.58	
17	18	12	22	15	18	22	41	17	26	6.06	6.70	6.90	5.74	6.35	20	11	13	0	9.94 ?	Rain in excess.
14	..	24	..	14	..	20	..	12	..	....	....	....	....	....	..	..	11	0	....	
23	41	2	4	5	8	23	48	28	54	5.20	6.10	6.14	5.27	5.70	23	8	5	0	2.16	
2	4	5	7	19	25	36	64	18	47	6.80	6.70	6.23	6.14	6.47	22	9	10	0	4.14	
30	52	7	12	19	41	11	25	28	43	3.61	4.90	4.45	2.22	3.54	12	19	11	0	5.28	
13	23	62	116	11	23	3	3	1	5	5.38	5.83	5.90	5.16	5.56	18	13	8	0	3.50 ?	Inaccurate.
20	64	77	231	5	23	7	27	0	0	4.64	4.87	5.83	4.12	4.86	17	14	6	0	....	
0	0	2	4	4	6	0	0	0	0	9.35	9.30	9.40	9.42	9.37	28	3	0	0	0.00	
1	1	6	17	19	58	20	48	61	177	5.42	6.40	6.16	6.00	6.00	21	10	8	0	....	

MONTH OF JUNE, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	61.13	66.70	75.20	67.60	67.66	92	46	24.3	21.7	9	27	9	26	3	6
Fort Columbus	62.40	68.33	77.26	68.46	69.11	91	46	21.9	23.1	0	0	12	17	2	5
West Point	60.96	69.40	75.56	67.90	68.46	90	44	21.5	24.5	23	75	5	12	1	1
Watervliet Arsenal	64.80	71.60	77.07	66.23	69.92	90	48	20.1	21.9	2	4	0	0	0	0
Alleghany Arsenal	58.26	70.63	79.80	64.80	68.37	93	40	24.6	28.4	36	51	6	9	5	7
Carlisle Barracks	60.90	78.66	81.13	69.13	72.46	99	44	26.5	28.5	8	13	0	0	17	20
Fort McHenry	65.50	75.46	85.70	72.90	74.91	99	50	24.1	24.9	2	5	1	1	0	0
Fort Monroe	69.13	74.06	83.76	74.96	75.48	93	57	17.5	18.5	5	12	4	8	4	7
Fort Moultrie	78.10	81.06	83.06	75.83	79.51	89	76	9.5	3.5	24	54	17	35	4	4
Fort Brooke	73.00	81.00	83.00	76.00	78.25	89	70	10.8	8.2	4	8	2	3	23	41
Mount Vernon Arsenal	69.93	76.83	79.26	73.56	74.89	90	64	15.1	10.9	3	..	14	..	14	..
New Orleans Barracks	74.81	84.02	84.50	78.11	82.46	94	70	11.1	12.9	13	14	8	9	25	26
Baton Rouge Barracks	72.24	79.02	85.24	73.12	77.40	92	70	14.6	7.4	13	22	44	78	1	2
Fort Washita	68.30	76.00	84.00	73.16	75.37	91	56	15.6	19.4	27	31	5	6	33	33
Fort Smith	68.20	74.06	82.16	75.86	75.07	91	58	15.9	17.1	14	20	0	0	63	64
Fort Gibson	69.13	74.50	82.00	77.70	75.83	90	61	14.2	14.8	0	0	0	0	0	0
Fort Scott	63.30	74.93	81.96	70.66	72.71	92	51	19.3	21.7	13	14	14	19	14	18
Jefferson Barracks	62.10	72.60	80.93	72.30	71.48	90	52	18.5	19.5	7	13	7	16	9	19
St. Louis Arsenal	60.13	71.93	86.86	73.46	73.10	98	48	24.9	25.1	5	5	19	20	15	26
Newport Barracks	65.96	74.53	82.10	72.93	73.88	94	50	20.1	23.9	2	..	17	..	9	..
Fort Snelling	59.23	67.13	76.26	67.16	67.45	90	42	22.5	25.5	1	1	4	7	2	3
Fort Leavenworth	62.56	68.26	77.53	67.86	69.05	87	55	18.0	14.0	17	32	5	12	30	55
Vera Cruz	79.60	80.60	80.90	80.17	80.32	85	60	4.7	20.3	11	22	2	2	0	0
Monterey	54.00	57.70	65.30	55.20	58.05	77	50	19.0	8.0	4	7	0	0	0	0

MONTH OF JUNE, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	10	7	14	47	116	9	29	32	130	6.20	6.26	6.10	6.76	6.43	20	10	8	0	5.19	
19	30	6	6	30	54	5	8	46	103	4.36	5.56	5.76	5.10	5.19	17	13	12	0	4.56	
10	17	37	73	7	12	5	10	32	107	4.13	5.00	5.03	5.96	8.03	17	13	12	0	7.37	
1	4	36	89	12	32	56	120	9	30	....	....	....	....	....	18	12	10	0	3.62	Weather observa-
0	0	2	6	23	52	31	42	17	46	3.10	6.26	5.30	7.86	5.63	20	10	8	0	3.03	[tions defective.
3	3	8	14	2	9	60	121	22	75	8.40	8.41	8.70	8.10	8.40	20	10	7	0	2.50	
10	23	7	12	61	74	12	29	27	65	6.00	5.70	5.56	6.36	5.88	17	13	5	0	4.24	
14	32	1	2	42	111	27	69	24	57	6.86	6.76	6.46	7.83	6.97	23	7	4	0	1.07	
6	10	29	76	8	16	19	41	13	32	7.26	7.73	7.20	7.80	7.49	22	8	7	0	7.85	Temp. inaccurate.
37	63	15	32	10	25	4	6	7	13	3.57	3.33	2.63	2.10	2.91	9	21	20	0	10.59	
27	..	10	..	21	..	16	..	15	..	5.03	4.43	2.80	4.23	4.12	12	18	16	0	6.35	
24	25	13	17	6	8	3	4	7	8	3.29	3.40	3.04	5.30	3.76	10	20	14	0	9.36	
33	52	9	11	12	21	0	0	6	10	4.00	4.05	2.14	4.20	3.60	11	19	20	0	8.60	
6	10	41	55	3	4	5	7	0	0	6.03	6.56	5.43	7.70	6.43	20	10	7	0	4.30	
0	0	31	36	1	1	11	15	0	0	5.11	5.16	5.06	6.03	5.34	19	11	6	0	4.90	
0	0	14	47	98	213	3	5	5	13	6.43	6.16	6.63	8.16	6.85	20	10	4	0	4.50	
12	14	32	32	20	45	9	11	6	7	4.70	5.36	5.33	5.70	5.27	13	17	5	0	1.85	
15	33	35	75	24	53	15	38	8	15	4.90	4.53	5.33	4.80	4.89	13	17	7	0	7.33	
17	15	15	20	12	18	28	40	9	14	6.66	7.33	7.41	6.66	7.01	20	10	11	0	18.96	Rain in excess.
11	..	39	..	21	..	15	..	6	..	....	....	....	....	....	..	..	9	0	....	
32	63	18	49	30	53	7	11	26	45	5.10	5.23	5.43	3.26	4.75	17	13	9	0	2.83	
10	14	37	69	9	21	10	16	2	5	7.00	8.60	7.86	6.53	7.49	21	9	8	0	6.76	
0	0	21	40	11	24	0	0	1	1	9.12	9.14	9.13	9.04	9.11	27	3	8	0	....	
0	0	8	20	30	70	21	43	39	98	4.50	6.40	7.00	6.00	5.98	17	13	1	0	....	

MONTH OF JULY, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Hamilton	67.74	70.83	76.87	68.90	71.08	82	58	11.0	13.0	12	34	11	30	12	26
Fort Columbus	68.45	72.39	80.12	72.16	74.28	91	57	16.7	17.3	5	7	11	23	9	31
West Point	66.29	71.00	76.77	70.54	71.15	86	58	14.9	13.1	14	30	4	12	1	2
Watervliet Arsenal	67.32	72.77	78.58	68.74	71.88	87	52	15.1	19.9	..	..	..	..	..	..
Alleghany Arsenal	64.38	71.70	80.80	67.00	70.97	90	52	19.0	19.0	24	28	2	6	16	26
Carlisle Barracks	63.58	74.87	78.22	68.51	71.27	87	50	15.7	21.3	4	8	9	17	36	71
Fort McHenry	68.00	76.19	83.70	73.35	75.26	97	60	21.7	15.3	5	5	19	78	3	5
Fort Monroe	65.12	80.22	81.40	75.17	75.48	89	63	13.5	12.5	3	5	7	19	22	65
Fort Moultrie	80.90	82.81	82.16	81.12	81.75	90	78	8.3	3.7	28	63	5	7	22	38
Fort Brooke	75.35	85.00	85.35	78.16	83.46	89	71	5.5	12.5	4	15	5	10	30	54
Mount Vernon Arsenal	71.19	81.35	84.74	75.61	78.22	92	64	13.8	14.2	5	..	3	..	2	..
New Orleans Barracks	76.50	85.09	85.15	74.96	80.42	94	74	13.6	6.4	10	13	7	8	22	23
Baton Rouge Barracks	74.21	84.24	90.29	76.19	81.23	93	72	11.7	9.3	2	4	1	2	0	0
Fort Washita	70.00	79.00	89.96	80.00	79.74	98	62	18.3	17.7	28	31	3	3	31	33
Fort Smith	71.48	78.00	87.64	78.93	79.01	94	62	15.0	17.0	18	24	2	2	49	51
Fort Gibson	69.46	77.54	88.88	75.93	77.95	93	60	15.0	18.0	0	0	3	3	3	3
Fort Scott	65.67	76.29	83.90	73.90	74.94	96	54	21.0	21.0	22	25	19	23	14	22
Jefferson Barracks	65.12	69.80	80.67	74.45	72.51	89	56	16.5	16.5	11	20	13	30	10	20
St. Louis Arsenal	67.54	75.67	88.67	74.70	76.65	99	56	22.3	20.6	6	10	13	15	12	12
Newport Barracks	68.74	76.16	82.74	74.38	75.50	96	59	20.5	16.5	9	..	8	..	6	..
Fort Snelling	59.64	67.22	74.38	66.74	67.00	88	50	21.0	17.0	1	2	26	41	2	2
Fort Leavenworth	65.61	71.83	79.51	72.41	72.34	88	58	15.7	14.3	22	50	14	31	19	36
Monterey	50.30	57.10	64.90	54.10	54.40	71	48	16.6	6.4	9	16	1	2	0	0

MONTH OF JULY, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	29	12	19	50	132	9	30	6	19	5.19	5.32	5.12	6.16	5.44	16	15	5	0	1.80	
24	57	7	11	32	65	9	18	27	57	4.03	4.22	4.09	3.87	4.05	13	18	8	0	2.64	
26	77	28	82	21	45	10	20	20	62	3.74	4.54	4.51	4.80	4.39	14	17	13	0	4.42	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	19	12	10	0	5.57	
15	20	6	10	20	29	24	53	17	18	2.74	4.38	3.87	5.61	4.15	13	18	10	0	3.69	
6	12	2	7	4	8	52	95	11	20	8.00	4.70	5.00	5.00	4.92	14	17	13	0	8.79?	
14	22	12	17	49	50	16	16	6	10	3.09	3.86	3.64	4.67	3.81	11	20	8	0	4.42	
37	72	6	13	24	54	18	45	7	17	5.64	5.53	4.35	6.55	5.51	17	14	8	0	4.19	
15	30	39	76	7	14	1	2	7	11	6.45	7.09	7.09	6.48	6.77	21	10	4	0	5.85	
24	54	18	32	16	35	11	33	11	36	7.11	6.32	5.06	4.29	5.70	25	6	16	0	21.31	
19	..	26	..	22	..	29	..	18	..	5.22	4.80	3.35	6.54	4.97	15	16	8	0	3.10	
11	11	20	25	2	2	17	20	6	10	3.40	4.69	2.27	6.70	4.27	14	17	13	0	7.79	Observations irregular.
52	93	3	6	50	75	5	8	10	17	5.02	5.00	6.00	7.17	5.80	19	12	17	0	11.80	
3	6	51	68	1	1	6	6	1	2	6.09	6.38	7.51	7.83	6.95	24	7	5	0	3.70	
4	4	25	24	6	10	18	20	2	3	6.22	5.80	6.54	8.00	6.64	23	8	4	0	5.23	
0	0	35	40	39	71	14	25	30	27	5.90	6.12	6.51	6.93	6.36	23	8	6	0	6.98	
6	8	28	55	18	30	3	3	14	20	2.96	4.29	5.35	6.45	4.76	17	14	6	0	4.84	
11	27	31	65	19	42	12	23	17	40	5.25	5.41	5.25	5.93	5.46	21	10	5	0	4.01	
19	18	15	16	11	19	35	63	13	15	5.96	6.61	7.19	5.74	6.37	22	9	10	0	5.56	
1	..	31	..	26	..	33	..	10	..	....	....	....	....	....	20	11	13	0	....	
29	35	6	12	15	18	3	6	42	72	3.35	4.64	5.32	6.25	4.89	15	16	11	0	4.60	
11	22	39	91	9	18	6	12	4	8	5.67	7.93	7.80	6.22	6.90	21	10	5	0	3.25	Inaccurate.
0	0	0	0	16	27	29	61	59	136	1.60	5.10	7.00	4.10	4.45	15	16	1	0	....	

MONTH OF AUGUST, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Hamilton	67.74	72.22	80.70	71.74	73.10	88	60	14.9	13.1	11	38	35	84	9	17
Fort Columbus	67.90	73.45	79.90	72.90	73.54	86	60	12.5	13.5	7	15	21	48	12	21
West Point	65.67	71.51	78.67	70.22	71.52	85	55	13.5	16.5	25	94	5	10	2	2
Watervliet Arsenal	68.03	72.26	78.49	68.77	71.89	88	58	16.1	13.9	16	50	0	0	0	0
Alleghany Arsenal	62.74	72.77	80.51	67.61	70.91	91	52	20.1	18.9	19	19	10	11	31	41
Carlisle Barracks	62.58	72.64	79.22	60.79	68.81	86	54	17.2	14.8	0	0	31	51	2	2
Fort McHenry	68.06	76.22	87.64	73.03	76.24	95	60	18.7	16.3	14	15	30	65	24	29
Fort Monroe	71.74	77.10	80.32	74.39	75.89	86	64	10.1	11.9	10	21	18	36	46	85
Fort Moultrie	78.00	83.90	86.19	82.90	82.75	90	70	7.3	12.7	50	97	2	2	27	39
Fort Brooke	72.41	83.11	88.43	78.88	80.71	98	72	17.3	8.7	8	15	10	17	34	65
Mount Vernon Arsenal	70.67	81.25	84.19	75.16	77.82	92	66	14.2	11.8	5	..	23	..	12	..
Camp Lawson	74.48	79.55	86.64	78.74	79.85	94	68	14.2	11.9	26	46	4	9	0	0
New Orleans Barracks	76.33	83.37	85.55	79.73	81.25	92	70	10.8	11.2	7	7	11	14	25	30
Baton Rouge Barracks	77.11	85.21	89.21	77.21	82.18	94	75	11.8	7.2	0	0	29	52	24	37
Fort Washita	73.61	80.32	91.71	79.70	81.08	103	64	21.9	17.1	22	24	4	5	27	31
Fort Smith	72.41	77.16	87.83	80.41	79.45	94	60	14.5	19.5	18	..	4	..	63	..
Fort Gibson	69.57	77.82	86.96	72.39	76.68	91	62	14.7	14.3	1	1	0	0	8	8
Fort Scott	65.80	76.70	88.77	73.06	76.08	97	54	20.9	22.1	14	28	19	40	11	16
Jefferson Barracks	65.03	74.03	83.03	73.77	73.97	92	56	18.0	18.0	6	13	15	20	0	0
St. Louis Arsenal	66.96	75.61	90.06	78.06	74.67	98	56	20.3	11.7	3	3	12	14	9	9
Newport Barracks	68.83	75.19	81.48	74.38	75.00	93	62	18.0	13.0	11	..	25	..	12	..
Fort Snelling	60.48	68.06	74.64	65.48	67.16	86	48	18.8	19.2	4	4	17	18	6	8
Fort Leavenworth	61.34	68.20	79.40	70.00	69.74	85	54	15.3	15.7	16	34	2	4	16	35
Monterey	54.90	62.30	71.90	56.20	60.08	86	50	25.9	10.1	2	7	3	5	0	0

MONTH OF AUGUST, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	7	1	2	40	103	4	10	21	55	6.67	7.58	7.19	9.00	7.58	20	11	4	0	0.94	
25	51	9	25	13	30	6	15	31	67	4.00	5.48	6.06	3.09	4.65	14	17	6	0	1.41	
35	96	30	66	9	17	1	2	17	46	3.70	5.00	5.93	7.12	5.43	17	14	5	0	0.49	
4	8	69	192	4	8	24	66	3	6	....	....	....	....	....	24	7	3	0	2.98	
19	20	11	17	22	44	9	14	3	6	2.48	4.77	4.35	6.25	4.43	15	16	11	0	2.27	
41	68	0	0	18	35	1	2	31	69	3.32	4.29	5.90	6.61	5.03	14	17	6	0	1.95	
8	11	6	15	4	4	10	23	28	33	4.51	4.54	5.03	7.35	5.35	19	12	4	0	3.24	
25	49	1	1	8	14	4	7	12	25	5.25	4.61	4.64	7.13	5.33	19	12	7	0	3.47	
15	26	22	36	0	0	0	0	8	10	7.09	6.77	6.45	7.09	6.85	21	10	6	0	6.32	Temps. incorrect.
7	14	16	31	6	11	9	23	0	0	6.00	5.48	3.42	4.20	4.78	17	14	12	0	14.80	
15	..	11	..	17	..	14	..	27	..	6.06	5.93	3.48	6.51	5.49	18	13	10	0	4.39	
18	63	6	17	40	108	19	19	4	7	....	....	....	....	....	..	..	11	0	....	
12	13	27	28	2	3	5	6	3	4	6.86	5.14	3.14	5.69	5.21	16	15	12	0	8.37	Observations irregular.
21	39	2	4	5	10	0	0	43	79	4.13	4.71	5.00	6.10	4.99	16	15	17	0	12.10	
7	9	54	68	5	9	4	5	1	1	7.22	7.58	6.93	8.03	7.44	24	7	3	0	0.35	
0	..	33	..	0	..	6	..	0	..	6.03	6.38	6.09	8.25	6.68	22	9	3	0	2.35	
15	15	7	11	14	14	0	0	10	13	7.21	8.50	7.14	7.85	7.67	10	4	0	0	0.00	First 14 days.
12	29	32	78	24	57	2	2	10	15	3.16	4.00	4.90	6.93	4.74	16	15	5	0	4.20	
63	99	19	35	12	21	0	0	9	14	5.03	6.00	6.09	6.54	5.91	20	11	5	0	4.25	
21	21	17	17	19	28	38	47	5	5	6.19	7.38	7.55	6.54	6.86	22	9	7	0	3.31	Temp. in error at 3 p, m.
8	..	35	..	9	..	23	..	1	..	....	....	....	....	....	20	11	5	0	....	
54	77	8	12	11	20	5	14	19	20	3.00	4.03	4.96	3.32	3.82	14	17	7	0	3.19	
24	64	31	69	14	29	18	30	4	9	4.48	6.77	7.61	6.41	6.31	21	10	5	0	3.05	Temp. for first ten days.
2	3	15	49	36	71	12	25	47	93	4.10	6.20	6.00	7.10	5.85	19	12	0	0	0.00	

MONTH OF SEPTEMBER, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Hamilton	58.53	62.80	71.96	62.53	63.96	82	41	18.0	23.0	5	12	7	14	1	3
Fort Columbus	58.36	62.40	68.36	64.63	63.44	82	42	18.5	21.5	14	46	6	22	1	3
West Point	54.23	61.76	68.83	61.10	61.48	83	38	21.5	23.5	34	109	7	14	0	0
Watervliet Arsenal	50.70	55.47	61.93	53.33	55.36	78	30	22.6	25.4	5	12	6	13	0	0
Alleghany Arsenal	51.43	57.33	68.90	54.90	58.14	82	38	23.9	20.1	27	38	7	11	8	12
Carlisle Barracks	49.76	59.43	68.10	57.06	58.59	83	32	24.4	26.6	3	4	6	11	6	6
Fort McHenry	57.03	65.73	75.63	62.73	65.23	92	42	26.8	23.2	8	16	3	3	4	4
Fort Monroe	64.00	70.00	74.16	68.96	69.28	85	40	15.7	29.3	6	13	31	65	12	18
Fort Moultrie	75.00	77.73	80.16	75.40	77.07	87	64	9.9	13.1	13	19	4	7	22	60
Fort Brooke	75.08	81.87	86.00	77.95	80.22	94	70	13.8	10.2	2	3	16	66	25	70
Mount Vernon Arsenal	65.13	73.93	81.33	70.63	72.76	92	56	19.2	16.8	21	24	28	44	10	10
Camp Lawson	68.53	76.26	78.90	73.56	74.31	94	58	19.7	16.3	43	102	61	137	1	3
New Orleans Barracks	71.43	85.59	84.25	76.77	79.51	94	63	14.5	16.5	17	30	10	16	21	28
Baton Rouge Barracks	67.17	76.27	86.00	69.15	74.65	90	61	15.4	13.6	24	47	22	42	5	8
Fort Washita	64.96	71.20	83.00	75.30	73.62	99	50	25.4	23.8	49	64	12	13	18	19
Fort Smith	60.60	66.33	78.46	69.56	68.74	90	48	21.3	20.7	23	25	4	4	65	61
Fort Gibson	47.00	65.89	76.27	58.82	62.00	90	30	28.0	32.0	2	5	7	22	0	0
Fort Scott	52.70	66.83	77.46	62.10	64.77	94	36	29.2	28.8	21	40	22	35	12	13
Jefferson Barracks	55.13	62.06	75.43	62.70	63.83	89	45	25.2	18.8	10	16	0	0	0	0
St. Louis Arsenal	51.10	58.60	77.40	64.73	62.96	90	40	27.0	23.0	12	13	13	15	7	8
Newport Barracks	56.70	63.26	71.74	63.30	63.75	86	40	22.3	23.7	39	..	17	..	4	..
Fort Snelling	47.17	55.16	61.28	52.27	53.97	79	34	25.0	20.0	7	10	19	26	6	11
Fort Leavenworth	....	....	....	....	....	....	....	....	....	19	40	8	13	11	20

MONTH OF SEPTEMBER, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	17	15	48	19	50	17	65	48	170	7.56	6.80	6.46	7.63	7.11	24	6	3	0	1.65	
9	29	10	39	14	34	27	78	37	124	6.26	6.63	6.40	6.83	6.53	22	8	5	0	1.87	
7	14	14	40	18	39	8	15	32	99	4.93	4.80	4.53	6.13	5.09	19	11	9	0	3.67	
0	0	31	74	8	18	46	138	20	63	....	....	....	....	....	14	16	8	0	2.25	
9	9	3	6	13	37	20	62	33	58	1.63	4.56	4.93	6.70	4.45	15	15	10	0	2.08	
18	29	8	14	49	95	14	20	16	34	5.30	5.06	5.83	6.23	5.60	18	12	5	0	2.10	
16	18	5	11	28	47	13	17	43	73	6.36	6.33	5.53	7.96	6.54	21	9	5	0	1.64	
12	27	11	21	16	20	24	33	8	13	6.70	6.63	5.46	6.63	6.35	20	10	3	0	0.85	
11	21	36	95	12	18	11	20	11	19	6.33	6.66	7.00	7.00	6.74	21	9	6	0	9.40	
12	29	19	59	6	27	1	2	0	0	6.24	3.16	3.30	4.17	3.47	10	14	3	0	....	First 24 days.
11	11	13	14	13	15	7	8	17	15	6.30	6.00	5.20	6.90	6.10	18	12	6	0	2.99	
2	6	5	14	1	2	0	0	8	19	4.93	5.23	5.76	6.13	5.51	18	12	10	0	....	
22	29	14	19	4	8	8	19	3	4	5.62	5.57	4.82	4.85	5.21	16	14	3	0	0.80	
8	16	0	0	9	18	12	23	39	75	8.04	8.16	8.23	9.18	8.40	24	6	2	0	0.50	
5	9	26	40	5	6	4	5	1	1	7.33	7.63	7.46	8.16	8.14	24	6	3	0	2.45	
0	0	17	20	1	3	10	11	0	0	6.96	7.06	6.73	8.36	7.27	24	6	3	0	0.90	
15	15	2	5	19	21	10	17	15	29	2.47	5.82	5.17	5.94	4.82	7	10	1	0	*0.35	Observations for the
13	24	16	46	14	36	15	30	7	16	5.70	6.23	5.00	6.63	5.89	21	9	3	0	1.19	[last 17 days.
30	57	14	22	27	43	27	49	12	24	7.66	7.56	7.63	7.76	7.65	25	5	3	0	2.90	
15	18	11	12	19	18	28	42	15	19	5.63	6.76	7.43	7.00	6.70	26	4	4	0	1.18	Weather obs. inac.
2	..	7	..	20	..	21	..	10	..	....	....	....	....	....	23	7	6	0	....	Weather obs. inac.
27	41	5	7	20	25	6	10	30	45	3.10	4.26	4.24	3.18	3.69	14	16	7	0	2.46	
21	41	20	36	11	26	17	28	13	33	3.73	7.40	7.70	7.66	6.52	23	7	4	0	7.60	

MONTH OF OCTOBER, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	48.37	52.10	57.58	54.00	53.01	74	30	21.0	23.0	7	9	15	30	16	19
Fort Hamilton	50.80	53.25	61.90	54.03	55.00	76	41	21.0	14.0	9	28	14	39	10	21
Fort Columbus	50.03	53.09	58.71	54.77	54.15	70	40	15.9	14.1	9	17	21	78	8	24
West Point	45.48	50.87	57.51	50.83	51.17	68	35	16.8	16.2	23	71	10	17	0	0
Watervliet Arsenal	44.03	49.52	55.77	46.58	48.97	74	34	25.0	15.0	2	12	0	0	0	0
Alleghany Arsenal	43.19	48.87	60.70	47.86	50.16	76	31	25.8	19.1	42	36	12	9	5	7
Carlisle Barracks	45.67	52.83	59.35	50.35	52.10	73	32	20.9	20.1	13	32	3	5	27	42
Fort McHenry	51.29	56.96	67.74	54.45	57.61	81	40	23.4	17.6	13	12	15	40	1	4
Fort Monroe	56.00	58.67	65.45	56.32	59.11	73	41	13.9	18.1	9	15	20	43	18	49
Fort Moultrie	60.29	63.16	67.16	66.51	64.28	77	54	12.7	10.3	36	48	10	10	31	90
Mount Vernon Arsenal	57.45	66.22	76.67	62.03	65.59	84	44	18.4	21.6	28	36	28	50	3	3
Camp Lawson	61.29	69.83	79.00	70.32	70.11	89	48	18.9	22.1	19	39	51	130	4	11
New Orleans Barracks	65.21	79.63	80.08	69.74	73.67	87	52	13.3	21.7	23	39	18	27	27	28
Baton Rouge Barracks	62.27	71.17	79.16	66.16	69.69	84	52	14.3	17.3	10	21	41	80	7	9
Fort Washita	54.61	62.32	74.09	63.16	63.55	84	32	20.4	31.6	45	50	8	10	26	32
Fort Smith	51.64	57.29	72.96	61.83	60.93	84	32	23.1	28.9	8	12	2	4	65	48
Fort Gibson	53.03	61.20	73.24	62.10	62.39	81	32	18.6	30.4	11	10	25	29	0	0
Fort Scott	44.22	59.13	70.03	52.28	56.42	84	28	27.6	28.4	6	10	22	39	10	17
Jefferson Barracks	45.65	53.00	63.94	55.26	54.46	75	34	20.5	20.5	6	13	2	8	1	2
St. Louis Arsenal	42.64	51.38	68.32	54.58	54.23	84	34	29.8	20.2	12	13	17	24	14	13
Newport Barracks	47.58	54.87	62.03	54.74	54.81	74	38	19.2	16.8	14	..	15	..	4	..
Fort Snelling	40.19	47.42	55.61	57.54	50.19	70	31	19.8	19.2	5	7	5	4	1	2
Fort Leavenworth	......	......	......	......	......	....	....	....	....	20	16	23	26	4	8

MONTH OF OCTOBER, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	17	1	1	3	7	13	26	4	7	6.00	5.47	4.79	5.95	5.55	12	7	5	0	0.80	Last 19 days.
7	15	12	25	19	41	21	67	32	73	5.32	5.22	4.70	5.96	5.30	18	13	6	0	2.95	
9	19	11	19	8	20	25	64	33	97	5.12	5.68	6.00	6.35	5.78	18	13	8	0	6.61	
11	16	22	54	11	18	7	17	40	102	3.64	3.84	4.00	4.45	3.98	13	18	11	0	4.43	
0	0	32	99	8	24	45	98	35	99	....	....	....	....	....	16	15	8	0	3.44	
10	20	17	37	15	23	8	21	15	28	1.32	3.09	4.35	5.22	4.49	13	18	9	0	2.11	
10	12	14	18	2	3	50	99	5	10	5.74	6.45	6.06	7.03	6.32	22	9	6	0	3.28	
43	46	7	7	10	15	14	16	21	30	4.93	4.48	4.83	6.83	5.26	14	17	7	0	7.35	
10	13	4	4	26	35	16	39	21	53	8.19	8.58	8.41	7.22	8.10	26	5	4	0	4.13	
3	6	5	9	4	..	33	..	2	..	7.74	7.09	6.77	7.41	7.45	22	9	4	0	5.25	
6	6	12	11	8	8	0	0	23	33	5.32	5.93	5.87	6.64	5.94	18	13	5	0	1.54	
22	69	2	5	20	59	0	0	4	10	3.80	5.00	5.77	6.83	5.48	21	10	6	0	....	
3	4	14	17	3	4	12	20	5	7	3.22	6.50	5.57	5.65	5.24	17	14	5	0	2.31	
2	5	0	0	15	27	6	12	39	74	5.28	6.20	6.25	8.23	6.49	23	8	3	0	1.38	
4	8	31	46	3	3	3	5	4	7	5.25	6.61	6.00	6.29	6.03	18	13	4	0	2.55	
0	0	12	12	6	4	29	23	2	2	6.19	6.54	6.16	7.58	6.61	22	9	5	0	3.80	
8	15	6	10	8	10	15	19	51	50	4.74	5.61	5.48	5.22	5.26	16	15	4	0	5.25	
6	14	12	27	15	25	26	47	27	61	3.29	4.00	4.17	4.06	3.88	16	15	6	0	1.72	
7	16	19	31	14	26	49	116	26	66	5.48	6.03	5.19	6.61	5.82	21	10	5	0	1.55	
6	6	5	5	12	15	29	33	22	21	5.83	6.67	6.83	6.32	6.41	20	11	7	0	4.32	
1	..	7	..	35	..	35	..	13	..	....	....	....	....	....	17	14	5	0	....	
28	29	9	13	35	49	10	14	31	68	1.68	2.68	4.10	4.00	3.11	9	22	4	2	0.68	
9	17	42	77	14	23	3	4	9	15	2.64	4.80	5.12	5.87	4.60	14	17	7	0	0.74	

MONTH OF NOVEMBER, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	38.23	40.40	44.16	41.20	41.40	58	22	17.0	19.0	36	61	18	23	22	36
Fort Hamilton	37.53	39.30	47.80	40.13	41.19	63	24	21.8	17.2	13	35	21	59	7	15
Fort Columbus	36.76	39.26	43.26	39.70	39.74	58	24	18.3	15.7	22	56	10	37	9	32
West Point	33.60	36.43	42.40	37.20	37.41	53	18	15.6	19.4	21	71	9	18	0	0
Watervliet Arsenal	34.63	39.03	45.93	38.13	39.43	56	18	16.6	21.4	..	..	..	..	..	..
Alleghany Arsenal	32.90	35.73	41.83	35.96	36.60	52	18	15.4	18.6	25	26	8	7	12	13
Carlisle Barracks	30.60	35.70	41.20	33.86	35.34	51	19	15.7	16.3	17	27	4	7	24	30
Fort McHenry	37.13	41.63	50.66	39.50	42.23	67	26	24.8	16.2	26	26	0	0	0	0
Fort Monroe	43.06	44.76	51.73	45.33	46.22	67	30	20.8	16.2	9	20	36	75	7	6
Fort Moultrie	41.13	51.26	57.43	51.00	50.20	67	31	16.8	19.2	34	59	15	17	21	34
Fort Brooke	58.00	62.75	71.45	60.50	63.17	83	41	19.8	22.2	8	23	37	97	15	31
Mount Vernon Arsenal.	42.90	50.36	61.76	49.73	51.19	74	28	22.8	23.2	17	22	17	18	7	8
Camp Lawson	47.81	56.95	65.13	53.63	55.88	80	31	24.1	24.9	47	112	18	49	9	20
New Orleans Barracks	50.25	64.82	66.56	56.68	59.58	75	37	15.4	22.6	18	35	14	20	20	24
Baton Rouge Barracks	47.06	54.20	62.17	53.11	54.13	76	34	21.9	20.1	5	10	71	149	3	6
Fort Washita	38.33	42.96	53.20	45.00	44.87	72	24	27.1	20.9	43	71	1	1	14	21
Fort Smith	35.73	39.35	51.28	45.36	42.93	68	20	25.1	22.9	29	41	3	3	32	32
Fort Gibson	37.07	43.08	51.09	44.00	43.81	70	23	26.2	20.8	34	84	8	23	4	8
Fort Scott	25.90	36.30	44.20	34.73	35.28	69	16	33.7	19.3	8	17	27	33	3	6
Jefferson Barracks	34.67	37.53	42.80	36.93	37.98	56	15	18.0	23.0	18	52	4	10	7	22
St. Louis Arsenal	30.36	36.73	45.51	36.40	37.25	60	18	22.7	19.3	13	13	13	13	12	17
Newport Barracks	36.06	39.66	44.86	39.36	39.98	58	26	18.0	14.0	21	..	6	..	12	..
Fort Snelling	22.36	24.86	29.66	25.83	25.68	44	— 1	18.3	26.7	1	1	11	35	0	0
Fort Leavenworth	......	......	......	......	......	....	....	......	......	25	46	11	28	12	14

MONTH OF NOVEMBER, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Sonw.		
6	8	1	2	0	0	16	26	17	30	6.10	7.03	7.56	7.83	7.13	20	10	6	3	3.55	
0	0	10	32	15	41	22	83	32	112	6.26	6.76	5.66	7.50	6.54	20	10	2	2	1.82	
5	18	8	23	5	18	43	129	18	61	6.70	7.02	6.02	6.33	6.49	21	9	3	0	1.59	
11	36	18	39	16	34	7	14	38	108	4.96	5.10	4.43	5.90	5.09	16	14	4	4	6.76	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	20	10	4	3	2.23	
12	10	7	5	7	13	26	82	23	58	2.30	2.26	2.33	3.30	2.54	8	22	6	2	3.11	
4	5	10	13	4	7	48	112	9	21	7.20	7.03	6.81	7.23	7.06	20	10	2	1	2.73	
19	21	7	18	15	37	31	40	22	54	4.80	4.86	3.93	5.56	4.78	14	16	4	0	1.44	
8	30	4	13	11	13	18	32	27	55	5.26	5.96	5.30	5.70	5.80	18	12	4	0	1.30	
12	12	22	49	0	0	9	0	7	0	7.00	7.33	7.00	6.33	6.91	23	7	2	0	1.25	
5	8	3	4	8	23	4	4	21	44	4.00	5.00	5.30	5.20	4.78	13	17	2	0	....	
11	11	16	19	0	0	8	7	34	59	5.10	5.53	5.86	6.36	5.71	15	15	7	0	7.94	
2	3	1	2	0	0	4	12	7	18	5.45	6.00	6.45	6.50	6.09	16	6	5	0	....	First 22 days.
8	10	17	23	4	7	11	14	4	7	3.73	5.43	5.42	3.16	4.44	13	17	9	0	8.83	
9	18	2	5	5	12	1	2	21	43	4.15	5.10	5.06	5.02	4.83	16	14	8	0	6.80	
6	14	28	67	13	29	10	22	5	8	5.23	5.30	5.35	5.50	5.34	18	12	2	0	4.90	
0	0	13	18	2	3	20	36	2	7	5.63	4.86	4.46	5.63	5.14	17	13	4	0	3.55	
9	19	15	38	6	19	1	3	43	96	4.08	5.04	4.03	5.13	4.57	16	14	5	0	1.90	
1	1	10	40	25	45	9	15	37	59	3.93	4.63	5.06	6.63	5.06	17	13	4	0	0.27	
5	16	26	81	7	26	38	106	15	56	3.90	3.87	3.30	4.30	3.84	11	19	3	2	2.28	
10	13	0	0	11	11	26	35	26	26	5.36	6.20	6.90	5.80	6.06	21	9	4	1	1.91	
0	..	21	..	18	..	34	..	8	..	....	....	....	....	....	14	16	4	0	....	Therm. protected.
31	39	3	3	26	45	7	18	36	91	1.17	1.90	2.83	2.40	2.07	6	24	0	9	0.10	
12	35	8	24	5	11	2	5	45	72	3.63	4.10	4.37	4.20	4.60	13	17	4	3	4.33	

MONTH OF DECEMBER, 1848.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	36.97	38.39	41.97	38.90	39.06	53	16	13.9	23.1	5	7	23	32	11	18
Fort Hamilton	36.96	38.90	44.89	39.19	39.98	65	21	25.0	19.0	9	37	20	48	21	50
Fort Columbus	37.35	39.03	41.48	39.30	39.29	58	21	18.7	18.3	11	20	39	104	12	24
West Point	33.00	35.58	39.77	36.45	36.20	67	11	30.8	25.2	28	78	6	20	0	0
Watervliet Arsenal	31.35	34.30	36.40	32.58	33.66	56	— 4	22.3	37.7	..	..	..	..	..	..
Alleghany Arsenal	37.61	40.16	45.48	37.48	40.18	67	20	26.8	20.2	18	17	11	10	14	14
Carlisle Barracks	35.80	37.25	42.87	37.09	38.25	70	24	31.7	14.3	6	11	15	32	36	63
Fort McHenry	40.77	43.61	48.61	42.67	43.91	71	26	27.1	17.9	4	7	46	70	0	0
Fort Monroe	48.77	49.51	57.58	51.29	51.79	69	35	17.2	16.8	13	20	23	40	8	22
Fort Moultrie	61.79	61.59	63.25	60.37	61.75	71	48	9.2	13.8	13	36	12	33	6	7
Fort Brooke	67.51	69.67	76.80	72.38	71.59	82	51	10.4	20.6	3	5	27	47	20	30
Mount Vernon Arsenal	53.29	57.61	65.00	56.03	57.98	84	32	26.0	26.0	6	6	13	24	5	5
New Orleans Barracks	56.05	58.22	64.51	58.94	59.43	76	30	16.6	29.4	31	51	3	5	5	6
Baton Rouge Barracks	53.25	58.20	63.50	57.22	58.04	78	34	20.0	24.0	35	70	72	145	4	8
Fort Washita	26.77	29.12	39.03	33.19	32.03	71	5	39.0	27.0	14	51	6	18	15	41
Fort Smith	29.61	31.61	40.77	34.06	34.01	70	16	36.0	18.0	6	12	14	21	22	20
Fort Gibson	26.51	30.22	35.61	29.58	30.48	69	0	38.5	30.5	16	29	9	20	6	11
Fort Scott	16.41	22.25	27.93	21.22	21.95	52	—14	30.0	36.0	36	73	9	23	1	2
Jefferson Barracks	28.25	30.38	36.61	31.48	31.68	68	5	36.3	26.7	23	55	8	19	3	6
St. Louis Arsenal	25.54	29.45	35.61	30.22	30.20	50	6	19.8	24.2	20	16	19	20	8	11
Newport Barracks	38.51	42.12	43.41	41.03	41.27	70	24	28.7	17.3	4	4	27	22	9	9
Fort Mackinac	19.36	20.73	22.05	20.78	20.73	34	1	13.3	19.7	20	31	8	13	2	3
Fort Snelling	5.35	7.00	14.13	8.00	8.62	27	—15	18.4	23.6	9	26	8	25	5	6
Fort Leavenworth	......	......	......	......	......	....	....	....	....	27	57	2	7	3	5

MONTH OF DECEMBER, 1848.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	25	10	18	3	7	29	61	23	56	4.82	4.71	4.19	4.45	4.54	14	17	9	3	5.48	
9	27	2	5	15	34	15	52	33	114	3.38	3.29	3.96	5.22	3.96	11	20	4	4	3.50	
9	22	3	8	10	26	17	48	23	65	3.51	3.58	4.26	4.61	3.99	12	19	5	3	4.02	
3	4	18	34	22	32	8	27	39	102	2.35	2.71	2.58	3.61	2.56	7	24	10	6	5.04	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	6	25	9	6	4.32	
2	3	21	41	19	42	16	40	20	44	2.38	2.32	2.38	3.61	2.67	7	24	10	3	4.88	
9	15	13	26	2	5	29	76	14	44	3.64	4.45	5.12	5.87	4.77	15	16	8	1	4.76	
13	13	8	16	21	40	7	7	17	34	2.51	2.22	2.87	4.38	2.99	9	22	8	2	3.10	
6	8	6	14	28	44	29	43	11	13	4.55	3.64	5.09	4.84	4.53	14	17	8	1	2.21	
8	9	14	28	17	20	13	26	13	28	4.83	5.54	5.16	6.50	5.38	11	13	6	0	1.70	Temp. in error.
34	70	6	15	6	14	4	5	17	26	4.61	6.00	5.12	6.83	5.64	17	14	6	0	....	Last 22 days.
21	38	30	23	7	11	3	9	37	52	1.96	1.80	2.19	3.09	2.26	8	23	12	0	5.74	
4	4	16	22	4	9	5	6	13	22	2.68	2.64	3.20	4.04	3.13	7	18	9	0	1.86	Last 25 days.
7	18	0	0	0	0	0	0	7	10	2.40	2.60	3.50	3.15	2.91	8	23	15	0	7.60	
9	29	21	64	11	32	25	36	23	64	4.32	4.26	4.32	5.06	4.49	14	17	2	6	2.50	
1	1	16	13	14	28	43	67	8	16	3.67	3.90	4.22	4.06	3.96	12	19	4	3	4.45	
15	39	4	11	10	18	4	6	60	126	4.09	4.03	4.16	5.09	4.34	14	17	4	2	4.65	
6	10	28	75	15	37	24	56	5	8	3.80	4.64	4.16	4.51	4.27	15	16	2	5	2.17	
7	18	32	92	11	25	33	78	7	17	2.87	2.58	3.19	3.35	2.99	10	21	4	9	4.01	
10	14	5	8	15	15	26	24	21	20	4.80	5.38	5.61	5.22	5.25	16	15	6	7	5.27	
6	6	25	28	22	19	22	20	9	9	....	....	....	....	....	14	17	6	4	....	Therm. protected.
2	2	11	16	13	25	12	24	9	26	1.10	1.15	2.27	2.63	1.80	2	17	0	4	0.16	Last 19 days.
29	50	12	9	25	29	5	13	31	80	1.06	2.45	3.13	2.68	2.33	7	24	0	9	0.40	
19	37	16	44	14	22	13	27	30	72	5.58	6.00	5.19	5.77	5.63	17	14	2	4	3.50	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Adams.........	41 30	71 19	40	......	......	......	......	......	......	......	......	......
Fort Hamilton	40 37	74 02	25	35.67	31.14	35.33	48.59	59.91	67.66	71.08	73.10	63.96
Fort Columbus......	40 42	74 01	23	33.79	31.21	36.14	50.10	61.38	69.11	74.28	73.54	63.44
West Point	41 23	74 00	167	32.40	28.74	34.36	48.52	60.78	68.46	71.15	71.52	61.48
Watervliet Arsenal ..	42 50	73 55	50	30.06	23.48	31.77	47.51	62.00	69.92	71.88	71.89	55.36
Alleghany Arsenal...	40 32	80 12	704	33.63	31.49	36.37	48.75	64.28	68.37	70.97	70.91	58.14
Carlisle Barracks	40 12	77 14	?	31.50	30.80	35.81	51.41	64.75	72.46	71.27	68.81	58.59
Fort McHenry	39 18	76 33	36	37.51	36.17	40.73	56.91	67.86	74.91	75.26	76.24	65.23
Fort Monroe	37 00	76 15	20	41.45	39.79	47.49	55.06	67.77	75.48	75.48	75.89	69.28
Fort Moultrie	32 42	79 56	20	50.02	50.17	59.52	66.05	......	79.51	81.75	82.75	77.07
Fort Brooke.........	28 00	82 28	20	63.31	62.42	67.45	71.32	76.50	78.25	83.46	80.71	80.22
Mount Vernon Arsenal	31 12	88 20	75	52.98	56.61	60.44	64.50	73.95	74.89	78.22	77.82	72.76
Camp Lawson.......	30 20	88 40	40?	......	......	......	......	......	......	......	79.85	74.31
New Orleans Barracks	29 57	90 00	20	58.18	61.67	64.33	68.39	76.47	82.86	80.42	81.25	79.51
Baton Rouge Barracks	30 26	91 18	41	......	......	......	......	......	77.40	81.23	82.18	74.65
Fort Washita	34 09	96 27	200?	47.44	51.72	55.95	58.59	74.82	75.37	79.74	81.08	73.62
Fort Smith	35 23	94 20	460	44.87	48.07	52.69	59.61	72.61	75.07	79.01	79.45	68.74
Fort Gibson.........	35 47	95 10	542	45.83	49.11	53.13	57.30	70.72	75.83	77.95	76.68	62.00
Fort Scott	37 45	94.35	1000?	37.41	39.68	45.21	53.81	68.53	72.71	74.94	76.08	64.77
Jefferson Barracks ...	38 28	90 15	382	38.49	40.99	42.42	56.61	68.58	71.48	72.51	73.97	63.83
St. Louis Arsenal....	38 40	90 05	450	35.57	37.90	42.16	51.08	66.14	73.10	76.65	74.67	62.96
Newport Barracks ...	39 05	84 22	500?	36.76	37.00	43.25	55.54	69.08	73.88	75.50	75.00	63.75
Fort Mackinac	45 51	84 38	728	20.86	20.69	23.21	37.31	48.14	......	......	......	......
Fort Brady..........	46 30	84 43	600	85.53	21.80	25.14	39.11	50.11	......	......	......	......
Fort Snelling	44 53	93 10	820	16.94	19.46	28.22	44.79	60.11	67.45	67.00	67.16	53.97
Fort Leavenworth ...	39 21	94 44	896	32.96	35.35	40.67	52.70	66.49	69.05	72.34	69.74	......
Matamoros..........	25 56	97 36	100?	65.43	66.17	69.61	72.03	81.22	......	......	......	......
Vera Cruz	19 12	96 08	13	74.40	......	74.32	76.70	81.52	80.32	......	......	......
Los Angeles.........	34 03	118 12	457	52.83	55.12	58.33	......	......	......	......	......	......
Monterey...........	36 36	121 52	85	51.38	46.62	50.15	52.82	55.25	58.05	54.40	60.08.	......
San Francisco.......	37 47	122 26	150?	49.33	50.49	......	......	......	......	......	......	......

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1848.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
53.01	41.00	39.06	......	......	......	......	......	....	....	....	....	Rhode Island.
55.00	41.19	39.98	48.28	70.61	53.38	35.60	51.97	92	5	40.0	47.0	New York.
54.15	39.74	39.29	49.87	72.31	52.44	34.76	52.34	91	3	38.7	49.3	New York.
51.17	37.41	36.20	47.89	70.38	50.02	32.78	50.27	90	0	39.7	50.3	New York.
48.97	39.43	33.66	47.09	71.23	47.92	29.07	48.83	90	—17	41.2	65.8	New York.
50.16	36.60	40.18	49.80	70.08	48.30	35.10	50.82	93	8	42.2	42.8	Pennsylvania.
52.10	35.34	38.25	50.66	70.85	48.68	33.52	50.93	99	3	48.1	47.9	Pennsylvania.
57.61	42.23	43.91	55.17	75.47	55.02	39.20	56.21	99	12	42.8	44.2	Maryland.
59.11	46.22	51.79	56.77	75.62	58.20	44.34	58.73	93	18	34.3	40.7	Virginia.
64.28	50.20	61.75	......	81.34	63.84	53.95	......	90	30	....	....	South Carolina.
......	63.17	71.59	71.42	80.81	......	65.77	......	96	32	....	....	Florida.
65.59	51.19	57.98	66.30	76.98	63.18	55.86	65.58	92	26	26.4	39.6	Alabama.
70.11	55.88	......	......	......	66.77	......	......	....	....	....	....	East Pascagoula, Mississippi.
73.67	59.58	59.43	69.73	81.51	70.92	59.76	70.48	94	31	23.5	39.5	Louisiana.
69.69	54.13	58.04	......	80.27	66.16	......	......	94	....	....	....	Louisiana.
63.55	44.87	32.03	63.12	78.73	60.68	43.73	61.56	103	10	41.4	51.6	Indian Territory.
60.93	42.93	34.01	61.64	77.84	57.53	42.32	59.83	94	14	34.2	45.8	Arkansas.
62.39	43.81	30.48	60.38	76.82	56.07	41.81	58.77	93	10	34.2	48.8	Indian Territory.
56.42	35.28	21.95	55.85	77.91	52.16	33.01	54.73	97	— 7	42.3	61.7	Kansas, (Western Missouri.)
54.46	37.98	31.68	54.87	75.99	52.09	37.05	55.00	92	— 5	36.0	60.0	Missouri.
54.23	37.25	30.20	53.13	74.81	51.48	34.56	53.49	98	— 4	44.5	57.5	Missouri.
54.81	39.98	41.27	56.29	74.79	52.85	38.34	55.57	96	— 9	40.4	64.6	Kentucky.
......	......	20.73	36.22	......	......	20.76	......	....	—15	....	....	Michigan.
......	......	......	38.12	......	......	......	......	....	—21	....	....	Michigan.
50.19	25.68	8.62	44.37	67.20	43.28	15.01	42.46	90	—24	47.5	66.5	Minnesota.
......	......	......	53.29	70.38	......	......	......	88	8	....	....	Kansas.
......	......	......	74.29	......	......	......	......	....	43	....	....	Mexico.
......	......	......	......	......	......	......	......	....	69	....	....	Mexico.
......	......	......	......	......	......	......	......	....	38	....	....	Southern California.
......	......	......	52.74	57.51	......	......	......	86	34	....	....	California.
......	......	......	......	......	......	......	......	....	....	....	....	California.

NOTE.—The temperature observations for this year were defective or inaccurate at several stations. At *Carlisle Barracks*, for certain months, and at *Fort Moultrie*, for the entire year, the morning observations were incorrect. At *New Orleans* and *Fort Brooke* they were irregular and often inaccurate. At *Jefferson Barracks*, *St. Louis Arsenal*, and *Newport Barracks* some months are in error at certain hours.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1848.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Adams	....	....	....	....	....	....	....	....	....	*0.80	3.55	5.48	....	....	....	....	....
Fort Hamilton	2.20	1.17	1.84	1.75	9.32	5.19	1.80	0.94	1.65	2.95	1.82	3.50	12.91	7.93	6.42	8.87	36.13
Fort Columbus	1.75	1.68	2.23	1.16	7.28	4.56	2.64	1.41	1.87	6.61	1.59	4.02	10.67	8.61	10.07	7.45	36.80
West Point	1.87	3.98	2.71	2.90	7.15	7.37	4.42	0.49	3.67	4.43	6.76	5.04	12.76	12.28	14.86	10.89	50.79
Watervliet Arsenal	2.02	2.27	3.22	1.40	6.61	3.62	5.57	2.98	2.25	3.44	2.23	4.32	11.23	11.37	7.92	8.61	39.13
Alleghany Arsenal	1.31	0.50	3.20	2.45	5.51	3.03	3.69	2.27	2.08	2.11	3.11	4.88	11.16	8.99	7.30	6.69	34.14
Carlisle Barracks	....	....	....	0.95	2.25	2.50	8.79?	1.95	2.10	3.28	2.73	4.76	....	13.24	8.11	....	....
Fort McHenry	1.58	0.94	2 70	0.81	2.96	4.24	4.24	3.24	1.64	7.35	1.44	3.10	6.47	11.90	10.43	5.62	34.42
Fort Monroe	0.77	3.20	3.18	1.39	3.68	1.07	4.19	3.47	0.85	4.13	1.30	2.21	8.25	8.73	6.28	6.18	29.44
Fort Moultrie	0 75	5.85	1.75	3.80	7.10	7.85	5.85	6.32	9.40	5.25	1.25	*1.70	12.65	20.02	15.90	8.30	56.87
Fort Brooke	0.36	0.21	0.05	1.23	2.30	10.59	21.21	14.80	....	....	....	....	3.58	46.70	....	....	....
Mount Vernon Arsenal	3.90	5.17	3.50	2.78	2.15	6.35	3.10	4.39	2.99	1.54	7.94	5.74	8.43	13.84	12.47	14.81	49.15
New Orleans Barracks	5.42	1.28	1.97	3.92	4.75	9.36	7.79	8.37	0.80	2.31	8.83	*1.86	10.64	23.52	11.94	8.56	56.66
Baton Rouge Barracks	....	....	....	....	....	8.60	11.80	12.10	0.50	1.38	6.80	7.60	....	32.50	8.68	....	....
Fort Washita	1.38	1.54	1.70	7.91	1.97	4.30	3.73	0.35	2.45	2.55	4.90	2.50	11.58	8.38	9.90	5.42	35.28
Fort Smith	2.88	1.00	3.74	5.64	5.92	4.90	5.23	2.35	0.90	3.80	3.55	4.45	15.30	12.48	8.25	8.33	44.36
Fort Gibson	1.05	0.20	3.12	5.21	4.52	4.50	6.98	*0.00	*0.35	5.25	1.90	4.65	12.85	11.48	7.50	5.90	37.73
Fort Scott	0.94	0.25	2.53	1.96	7.33	1.85	4.84	4.20	1.19	1.72	0.27	2.17	11.82	10.89	3.18	3.36	29.25
Jefferson Barracks	1.83	0.92	1.94	1.50	2.58	7.33	4.01	4.25	2.90	1.55	2.28	4.01	6.02	15.59	6.73	6.76	35.10
St. Louis Arsenal	0.96	2.96	5.56	2.93	9.94?	18.96?	5.56	3.31	1.18	4.32	1.91	5.27	18.43	27.83	7.41	9.19	62.86
Fort Mackinac	1.30	0.82	0.83	1.36	2.16	....	....	....	....	....	....	....	4.35	....	....	....	....
Fort Brady	1.92	1.83	0.97	1.30	4.14	....	....	....	....	....	....	....	6.41	....	....	....	....
Fort Snelling	0.62	1.13	1.71	0.18	5.28	2.83	4.60	3.19	2.46	0.68	0.10	0.40	7.17	10.62	3.24	2.15	23.18
Fort Leavenworth	1.45	1.40	1.50	0.91	3.50	6 76	3.25	3.05	7.60	0.74	4.33	3.50	5.91	13.06	12.67	6.35	37.99
Vera Cruz	0.20	....	0.47	9.25	0.00	....	....	....	....	....	....	....	9.72	....	....	....	....
Monterey	1.70	2.20	2.40	0.70	....	....	....	0.00	....	....	....	....	....	....	....	....	....

*Incomplete, though embracing more than half the month.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	E.	S.	S. W.	W.	N. W.
Fort Hamilton.......	222	144	44	10	27	47	25	20	33	81	34	97
Fort Columbus.......	209	157	85	8	29	54	19	42	19	48	52	100
West Point..........	143	223	106	22	78	18	1	39	72	38	16	102
Alleghany Arsenal...	162	204	90	13	78	35	38	23	28	42	62	61
Carlisle Barracks	218	148	71	4	22	22	73	30	29	23	123	43
Fort McHenry.......	168	198	68	4	35	40	12	56	24	67	50	72
Fort Monroe.........	212	154	65	3	23	65	54	42	16	59	59	53
Fort Moultrie........	259	107	53	0	79	33	54	31	66	24	42	28
Fort Brooke (*a*)......	175	154	77	0	12	37	69	48	40	25	25	27
Mt. Vernon Arsenal..	177	189	98	0	42	48	20	48	67	34	29	67
New Orleans B'ks. (*b*)	161	199	92	0	45	26	57	38	67	12	39	16
Baton Rouge B'ks. (*c*)	117	97	82	0	22	70	11	33	4	24	6	41
Fort Washita........	232	134	45	0	105	17	54	18	110	16	23	11
Fort Smith..........	227	139	58	3	58	14	145	5	56	14	63	6
Fort Gibson.........	203	133	51	2	19	27	8	23	53	115	24	68
Fort Scott...........	178	188	46	11	56	55	31	28	71	49	35	40
Jefferson Barracks ...	212	154	57	13	36	32	13	58	71	54	52	46
St. Louis Arsenal....	245	121	78	12	33	47	34	42	36	45	81	44
Fort Mackinac (*d*) ...	83	69	12	15	11	21	8	22	12	13	19	36
Fort Brady (*e*).......	77	75	21	30	10	13	33	13	7	17	29	21
Fort Snelling........	139	227	59	33	9	36	10	99	23	67	19	104
Fort Leavenworth....	....	....	....	....	34	19	14	30	51	57	50	94
Matamoros (*f*)	67	85	38	0	21	14	20	27	47	7	6	4
Monterey (*g*)	142	104	47	0	5	5	1	9	13	48	37	102

(*a*) October and six days of September wanting.

(*b*) Six days in December wanting.

(*c*) Last seven months.

(*d*) First five months.

(*e*) First five months.

(*f*) First five months.

(*g*) First eight months.

OBSERVATIONS FOR 1848.

WINDS.															
No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
110	350	188	511	101	234	81	178	134	327	323	835	138	516	387	1343
115	268	217	539	75	189	167	361	75	207	193	416	210	533	401	1166
313	962	74	166	6	7	158	373	290	667	151	288	64	169	408	1089
314	389	141	153	153	187	91	109	112	199	169	350	249	535	243	562
87	189	88	147	294	414	121	295	116	206	94	195	492	1036	172	445
141	232	161	335	49	83	224	285	96	208	267	426	201	352	290	657
94	214	262	550	218	413	168	356	63	118	236	462	236	492	213	513
315	637	133	235	218	439	125	211	266	568	95	161	170	261	114	226
46	102	149	356	275	543	192	386	162	353	101	242	99	243	109	244
167	199	192	262	82	93	191	237	269	341	137	170	115	135	270	398
179	290	106	144	229	258	152	183	270	342	47	73	157	212	64	94
90	174	280	548	45	70	132	241	16	26	96	153	24	45	165	398
421	566	70	86	215	267	74	138	440	798	63	118	91	127	46	99
233	334	55	77	580	599	19	24	223	267	56	91	254	319	25	46
77	154	109	194	32	52	91	146	211	488	462	946	97	178	271	480
223	394	222	357	123	192	113	223	286	733	198	473	140	245	160	275
144	324	129	287	54	140	232	517	286	687	217	511	207	486	186	419
133	175	187	247	136	168	168	186	143	173	182	241	324	486	175	212
44	134	85	262	31	100	90	292	48	148	51	168	77	253	144	513
42	85	52	71	132	165	54	68	30	36	68	113	117	217	83	178
37	65	144	247	42	62	396	593	92	145	267	418	78	160	417	665
136	269	75	124	54	90	120	231	204	454	228	461	201	398	374	828
86	165	54	101	79	146	107	301	188	454	28	78	24	52	17	42
20	38	20	32	4	8	35	84	52	157	191	387	147	285	408	858

MONTH OF JANUARY, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	24.26	24.58	29.43	27.76	26.01	49	2	23.0	24.0	45	53	30	77	20	29
Fort Hamilton	23.64	25.35	31.54	26.45	26.74	44	— 1	17.3	27.7	7	23	12	35	8	15
Fort Columbus	23.51	24.84	28.93	25.83	25.78	49	0	23.2	25.8	16	44	14	24	3	9
West Point	20.58	23.32	28.22	23.80	23.98	52	— 3	28.0	27.0	28	90	4	14	2	5
Watervliet Arsenal	14.70	19.25	24.52	20.80	19.81	45	—16	25.2	35.8	5	..	0	..	0	..
Fort Ontario	18.87	20.45	22.74	19.12	20.29	37	0	16.7	20.3	20	33	12	12	1	1
Alleghany Arsenal	25.58	27.90	31.83	27.83	28.28	57	0	28.7	28.3	16	28	22	35	1	1
Carlisle Barracks	21.29	24.74	30.64	23.06	24.93	44	— 9	19.1	33.9	4	18	16	42	15	17
Fort Mifflin	24.87	29.00	36.54	28.29	29.67	58	4	28.3	25.7	21	39	3	9	3	7
Fort McHenry	29.09	31.16	37.32	30.00	31.89	56	6	24.1	25.9	1	4	23	25	2	2
Fort Monroe	35.06	36.06	42.38	36.51	37.50	67	12	29.5	25.5	8	19	34	56	3	7
Fort Macon	38.40	41.20	44.70	40.70	41.25	56	20	14.7	21.3	58	141	5	12	3	5
Fort Moultrie	46.06	50.45	52.58	48.80	49.47	66	26	16.5	23.5	38	129	11	41	9	20
Fort Brooke	58.40	60.35	70.48	65.22	63.61	82	40	18.4	23.6	3	5	28	59	34	61
Fort Barrancas	53.80	56.20	63.80	59.00	58.20	76	33	17.8	25.2	20	23	21	39	38	43
Mount Vernon Arsenal	47.45	52.00	61.06	51.51	53.00	76	26	24.0	27.0	31	47	22	25	3	4
New Orleans Barracks	55.30	62.08	66.97	59.20	60.89	76	37	15.1	23.9	15	27	17	25	27	33
Fort Pike	56.60	59.93	66.50	60.40	60.86	78	32	17.1	28.9	2	6	17	43	18	57
Baton Rouge Barracks	54.07	58.27	63.20	57.19	58.16	78	43	19.8	15.2	0	0	28	49	1	2
Fort Washita	33.68	36.48	40.40	37.30	36.96	73	15	36.0	22.0	23	62	25	69	17	27
Fort Smith	32.90	34.80	39.74	35.67	35.78	68	13	32.2	22.8	6	15	14	18	44	68
Fort Gibson	30.64	31.58	36.77	33.77	33.19	65	10	31.8	23.2	9	16	6	17	11	39
Fort Scott	19.00	22.80	26.87	22.96	22.91	49	— 9	26.1	31.9	60	120	14	21	5	10
Jefferson Barracks	24.48	27.61	32.48	27.67	28.06	64	0	35.9	28.1	33	85	25	71	3	6
St. Louis Arsenal	21.15	25.13	30.04	24.18	25.12	60	— 2	34.9	27.1	25	44	16	23	8	11
Newport Barracks	25.54	33.00	40.96	32.83	33.08	60	14	26.9	19.1	14	..	6	..	13	..
Detroit Barracks	21.35	23.80	28.16	25.45	24.69	41	0	16.3	24.7	14	31	38	68	3	3
Fort Mackinac	11.13	12.76	17.90	14.13	13.98	34	— 8	20.0	22.0	16	30	20	33	8	21
Fort Snelling	1.71	3.74	11.10	5.13	5.42	36	—29	30.6	34.4	18	18	13	17	6	9
Fort Leavenworth	9.97	17.84	27.58	17.52	18.25	44	—13	25.7	31.3	32	52	17	48	11	22
Fort Kearney	2.84	8.13	11.55	5.90	7.10	28	—19	20.9	26.1	7	..	8	..	19	..
Santa Fe	27.84	....	40.29	30.48	32.87	54	4	21.1	28.9	..	..	..	..	..	..

MONTH OF JANUARY, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	6	2	2	0	0	7	9	14	21	6.35	6.42	6.66	6.93	6.59	21	10	5	3	1.65	
0	0	0	0	26	85	16	64	55	258	6.12	5.96	5.00	6.12	5.80	19	12	3	0	0.44	
1	2	0	0	19	34	23	61	48	55	5.61	5.90	5.77	5.00	5.57	20	11	5	0	0.61	
2	6	16	34	11	22	13	34	48	178	4.06	4.03	4.54	4.80	4.35	11	20	6	2	1.03	
2	..	43	..	9	..	36	..	29	..	....	....	....	....	....	28	13	5	2	0.65	
27	27	18	18	6	6	9	35	31	105	4.41	4.41	4.22	3.41	4.11	12	19	4	0	1.16	
5	11	13	15	17	43	29	89	21	66	1.93	2.45	2.19	2.25	2.20	8	23	6	8	2.43	
8	11	4	10	6	13	41	99	30	112	6.41	7.45	6.32	7.45	6.90	23	8	4	0	1.09	
0	0	15	38	19	55	32	77	31	96	4.51	3.71	4.64	4.32	4.29	12	19	5	1	0.71	
2	3	4	6	24	42	27	42	41	74	3.38	3.09	2.83	4.22	3.38	7	24	6	0	1.02	
2	11	2	3	16	34	25	38	34	55	4.13	3.90	4.48	4.74	4.31	13	18	4	1	1.70	
13	24	5	8	16	26	1	1	10	25	5.54	5.80	5.87	6.40	5.90	17	14	6	2	0.71	
4	11	7	18	10	38	12	34	33	78	7.55	8.19	8.09	8.45	8.07	27	4	1	0	0.25	
22	40	4	7	6	10	2	2	25	41	7.25	6.00	5.87	7.00	6.53	20	11	1	0	....	
15	23	18	29	3	3	0	0	7	15	2.70	4.40	4.50	4.50	4.03	13	18	7	0	0.59	
11	21	33	32	8	8	3	3	13	28	3.00	3.38	4.35	5.19	3.97	9	22	7	0	2.89	
6	6	20	29	6	11	16	25	5	7	1.46	4.14	4.90	5.22	3.93	16	15	5	0	3.55	
16	37	16	45	5	8	4	6	4	11	4.30	3.60	4.50	4.05	4.11	7	15	3	0	2.30	Observations for the
49	90	8	8	10	18	18	26	8	27	3.06	3.27	4.14	4.05	3.63	11	20	9	0	3.20	[last 22 days.
16	49	6	13	11	26	1	2	25	66	1.35	1.41	1.51	0.74	1.25	2	29	9	1	2.65	
2	3	1	2	2	4	36	55	12	17	1.61	2.16	2.16	2.25	2.05	6	25	8	1	4.35	
12	45	11	32	6	18	1	2	68	139	1.11	1.30	1.70	2.60	1.68	3	28	7	1	2.19	
19	52	12	42	4	18	4	15	6	19	2.29	2.03	2.00	2.90	2.30	8	23	7	1	3.26	
12	24	24	69	8	20	4	8	15	45	1.45	2.03	2.35	1.93	1.94	3	28	10	3	3.41	
14	15	10	11	13	15	24	38	10	14	4.24	6.14	5.18	4.12	4.99	8	23	9	3	7.59	
13	..	11	..	14	..	34	..	19	..	....	....	....	....	....	17	14	9	1	....	
11	15	0	0	20	27	3	4	35	82	3.03	2.80	2.67	3.14	2.91	11	20	6	6	2.28	
7	9	13	23	9	17	21	62	28	86	1.45	2.06	1.77	2.48	1.94	4	27	0	7	0.64	
32	42	1	1	27	31	2	2	25	43	1.22	3.03	2.29	3.01	2.39	6	25	0	5	1.00	
9	32	16	43	7	16	6	11	26	75	4.19	3.16	4.00	5.30	4.16	12	19	0	4	2.90	
12	..	29	..	12	..	6	..	31	..	....	....	....	....	....	18	13	0	8	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	18	13	5	6	....	Ob's at sunrise, 2 p. m. and 9 p. m.

MONTH OF FEBRUARY, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	22.74	23.32	27.75	25.46	24.82	40	6	15.2	18.8	31	53	15	28	11	12
Fort Hamilton	22.53	24.29	31.14	25.42	25.85	47	5	21.2	20.8	10	26	40	122	15	36
Fort Columbus	21.21	23.68	28.25	25.60	24.68	41	3	16.3	21.7	13	36	37	109	2	6
West Point	17.10	21.46	27.25	21.60	21.85	40	— 4	18.1	25.9	26	77	6	23	1	2
Watervliet Arsenal	10.60	15.90	22.20	17.22	16.48	43	—16	26.5	32.5	9	..	0	..	0	..
Fort Ontario	15.60	18.67	23.67	19.85	19.45	43	— 5	23.5	24.5	6	..	15	..	4	..
Alleghany Arsenal	24.00	27.96	33.25	27.10	28.08	48	— 4	19.9	32.1	7	13	31	34	9	10
Carlisle Barracks	20.92	25.70	28.21	24.85	24.92	44	— 2	19.1	26.9	8	16	3	6	36	75
Fort Mifflin	22.67	28.96	34.82	27.07	28.38	53	6	24.6	22.4	21	69	19	57	7	14
Fort McHenry	26.60	30.64	37.50	29.03	30.94	46	11	15.1	19.9	7	23	38	91	0	0
Fort Monroe	34.78	36.00	40.86	34.60	36.56	59	23	22.4	13.6	9	11	51	102	0	0
Fort Macon	39.60	42.20	45.70	42.00	42.38	58	30	15.6	12.4	27	72	10	23	2	2
Fort Moultrie	46.07	49.28	52.07	48.50	49.00	68	26	19.0	23.0	46	160	7	19	9	24
Fort Brooke	55.85	58.96	68.75	62.00	61.39	84	30	22.6	31.4	8	16	23	46	13	20
Fort Barrancas	46.11	52.20	60.26	53.80	53.09	77	30	23.9	23.1	9	15	26	28	20	21
Mount Vernon Arsenal	42.00	49.07	60.57	47.82	49.86	78	18	28.1	31.9	19	20	7	12	3	3
New Orleans Barracks	49.39	57.57	62.91	54.45	56.08	77	35	20.9	21.1	29	71	20	32	26	43
Fort Pike	47.33	52.74	57.75	53.35	52.79	74	23	21.2	29.8	11	34	21	50	22	55
Baton Rouge Barracks	46.80	53.14	62.00	53.26	54.30	77	24	22.7	30.3	12	30	0	0	4	4
Fort Washita	38.35	44.28	53.53	43.45	44.90	82	14	37.1	30.9	6	30	28	90	6	19
Fort Smith	32.92	38.00	50.57	42.14	40.91	84	0	43.1	40.9	11	21	9	13	31	48
Fort Gibson	34.50	39.02	47.06	38.03	39.65	80	— 2	40.3	41.7	27	87	5	8	6	17
Fort Scott	23.50	30.17	39.42	30.32	30.10	77	—12	46.9	42.1	22	50	9	17	4	9
Jefferson Barracks	26.82	29.78	36.32	31.78	31.18	57	3	25.8	28.2	16	47	10	27	14	49
St. Louis Arsenal	22.17	27.27	35.14	29.16	28.44	54	— 4	25.5	32.5	8	11	3	3	6	6
Newport Barracks	26.39	30.57	36.10	31.26	31.08	66	6	34.9	25.1	3	..	3	..	12	..
Detroit Barracks	20.93	24.28	32.11	26.78	26.03	57	—11	31.0	37.0	10	14	32	51	9	9
Fort Mackinac	7.64	11.89	19.46	10.46	12.36	44	—23	31.6	35.4	14	24	21	32	4	8
Fort Snelling	7.10	11.35	19.57	13.71	12.93	40	—30	27.1	42.9	2	9	1	1	5	5
Fort Leavenworth	14.25	24.30	37.40	23.18	24.78	70	—25	45.1	49.1	7	22	7	18	1	4
Fort Kearney	9.36	15.00	25.18	13.54	15.77	44	—22	28.2	37.8	7	..	7	..	5	..
Santa Fé	26.92	......	45.25	33.25	35.14	66	14	30.9	21.1	..	..	..	..	..	..

MONTH OF FEBRUARY, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	1	0	0	13	27	29	60	12	46	4.04	4.50	4.21	4.57	4.33	13	15	3	11	3.27	
0	0	2	4	14	55	5	20	26	124	5.53	5.03	4.00	6.56	5.28	17	11	1	6	2.12	
4	5	1	4	4	9	18	48	33	97	3.35	4.89	4.35	4.42	4.25	17	11	1	7	2.26	
8	17	20	48	8	21	6	26	37	122	3.10	3.39	2.67	4.85	3.50	11	17	2	13	2.07	
1	..	33	..	3	..	24	..	39	..	....	....	....	....	....	20	8	4	8	....	
28	..	14	..	3	..	12	..	30	..	4.00	4.13	4.13	4.15	4.10	14	14	0	3	1.15	
1	1	2	2	29	83	20	62	13	40	3.25	3.00	3.28	3.35	3.22	8	20	2	4	1.31	
12	18	8	15	5	9	27	75	13	43	5.60	5.85	6.28	6.00	5.98	17	11	1	7	1.31	
2	8	9	16	15	42	29	76	10	28	3.39	4.00	4.17	5.07	4.16	14	14	5	5	2.69	
3	3	10	24	12	14	13	15	29	68	3.57	3.21	3.00	5.07	3.71	11	17	4	5	1.15	
6	7	3	6	9	10	11	18	23	42	2.75	3.85	3.25	5.32	3.79	9	19	10	4	2.10	
1	3	1	3	17	39	5	18	42	128	4.10	4.30	4.80	5.58	4.70	13	15	7	3	2.00	
0	0	6	18	7	18	23	72	14	40	6.07	7.60	9.07	8.28	7.75	22	6	3	0	1.45	
10	19	6	17	8	16	6	16	38	99	5.91	8.00	5.92	8.00	6.95	21	7	2	0	....	
20	22	13	14	7	9	4	5	14	19	5.75	6.67	7.57	6.71	6.70	20	8	4	1	0.95	
7	20	14	26	9	17	2	2	51	107	5.39	5.46	5.75	5.28	8.47	16	12	4	1	2.44	
6	11	16	21	4	7	4	7	2	3	4.39	6.18	6.32	6.39	6.07	18	10	5	1	2.45	
6	13	3	11	8	15	8	21	22	96	2.05	3.15	2.25	1.60	2.26	5	23	6	0	3.26	
12	15	4	4	46	69	11	17	23	43	4.90	6.20	7.00	6.26	6.09	20	8	5	2	6.20	
24	84	7	27	15	53	6	23	20	61	3.10	3.53	3.64	3.35	3.40	10	18	5	1	2.65	Force of winds overestimated.
2	3	1	2	0	0	45	58	7	16	4.57	4.53	4.64	5.88	4.90	15	13	5	2	1.76	
6	16	11	44	16	38	5	12	36	90	5.03	4.08	4.07	7.71	5.19	15	13	4	1	0.88	
14	30	21	23	6	25	16	34	20	57	3.50	3.81	4.32	4.28	3.97	11	17	1	1	0.18	
18	54	13	29	6	14	18	36	27	90	5.21	4.67	4.17	3.60	4.41	11	17	1	3	0.37	
17	20	4	6	13	17	33	45	24	32	5.14	6.02	6.21	6.06	5.85	19	9	2	2	0.55	
8	..	13	..	19	..	39	..	15	..	....	....	....	....	....	18	10	2	3	....	
14	16	3	3	14	20	4	7	26	51	2.40	3.25	3.25	3.39	3.07	8	20	2	9	1.01	
12	18	28	43	4	7	12	28	17	35	2.89	3.89	3.17	4.46	3.60	13	15	0	2	0.27	
37	46	3	3	26	47	2	4	30	76	2.13	3.23	3.15	3.12	2.65	13	15	2	2	0.61?	
20	67	9	30	24	51	3	10	41	138	4.24	5.60	6.21	7.15	5.80	15	13	3	0	0.60	
3	..	20	..	22	..	26	..	24	..	....	....	....	....	....	18	10	..	..	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	22	6	2	6	....	

MONTH OF MARCH, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Adams	35.48	37.09	41.26	38.87	38.15	55	26	16.8	12.2	12	21	22	80	28	41
Fort Hamilton	34.74	36.87	43.90	37.80	38.33	68	24	29.7	14.3	21	76	22	50	7	17
Fort Columbus	34.13	36.35	42.46	38.42	37.84	66	24	28.2	13.8	11	24	38	119	8	18
West Point	31.96	36.81	43.74	36.84	37.34	60	14	22.7	23.3	30	108	16	53	2	10
Watervliet Arsenal	30.93	36.51	40.87	36.26	36.14	58	16	21.9	20.1	6	..	0	..	0	..
Madison Barracks	28.70	32.22	37.19	32.53	32.66	52	10	19.3	22.7	44	82	11	14	17	27
Fort Ontario	31.58	35.29	36.96	32.35	34.04	53	19	19.0	15.0	17	..	19	..	5	..
Alleghany Arsenal	35.54	40.90	48.74	39.03	41.05	62	25	21.0	16.0	31	66	26	32	10	11
Carlisle Barracks	34.38	41.35	47.93	38.74	40.60	68	24	27.4	16.6	9	23	8	13	31	48
Fort Mifflin	35.96	41.96	49.64	41.38	42.24	75	21	32.7	21.3	23	53	11	34	9	29
Fort McHenry	38.70	44.19	51.67	43.19	44.44	72	26	27.6	18.4	11	25	25	74	0	0
Fort Monroe	43.13	46.58	50.87	45.97	46.40	70	35	23.6	11.4	19	49	51	74	8	14
Fort Macon	47.26	50.39	56.93	51.35	51.48	68	38	16.5	13.5	27	103	18	45	18	43
Fort Moultrie	55.26	58.77	61.70	59.03	58.69	74	44	15.3	14.7	35	122	9	38	18	55
Fort Brooke	65.96	68.93	79.16	72.32	71.60	87	51	15.4	20.6	2	3	15	22	27	46
Fort Barrancas	62.45	67.71	70.54	65.80	66.62	86	44	19.4	22.6	17	38	4	10	30	45
Mount Vernon Arsenal	57.32	66.71	74.90	61.61	65.14	84	34	18.9	31.1	18	62	21	56	0	0
New Orleans Barracks	63.52	72.07	77.61	67.48	70.17	88	46	17.8	24.2	13	23	7	11	23	34
Fort Pike	60.40	71.13	77.40	68.60	69.40	84	42	14.6	27.4	6	23	13	29	19	56
Baton Rouge Barracks	60.93	67.19	77.29	65.84	67.81	84	43	16.2	24.8	0	0	0	0	0	0
Fort Washita	50.71	57.96	67.19	58.77	58.66	82	36	23.3	22.7	23	66	23	67	10	36
Fort Smith	48.03	54.93	67.83	59.83	57.65	86	32	28.4	25.6	0	0	5	9	53	78
Fort Gibson	47.32	56.32	63.83	55.87	55.84	80	32	24.2	23.8	27	75	11	21	10	31
Fort Scott	40.96	48.54	58.90	47.71	49.03	75	22	26.0	27.0	13	16	27	51	8	12
Jefferson Barracks	42.23	48.67	57.29	49.64	49.46	72	26	22.5	23.5	14	28	22	60	41	95
St. Louis Arsenal	37.15	43.21	57.25	48.00	46.40	74	26	27.6	20.4	9	14	8	8	9	9
Newport Barracks	42.47	48.61	55.16	49.74	49.00	72	26	23.0	23.0	11	..	23	..	8	..
Detroit Barracks	33.45	37.61	46.48	39.09	39.16	58	15	18.8	24.2	15	40	65	115	2	2
Fort Mackinac	22.77	29.74	34.06	25.83	28.10	54	0	25.9	28.1	9	19	19	34	19	45
Fort Snelling	24.13	30.96	36.00	29.96	30.26	51	6	20.7	24.3	5	7	22	20	5	5
Fort Leavenworth	36.39	44.74	56.19	45.29	45.65	76	15	30.4	30.6	1	3	26	69	13	30
Fort Kearney	27.84	35.16	46.16	34.06	35.80	70	7	34.2	28.8	11	..	20	..	16	..
Santa Fe	33.70	......	54.42	41.42	43.18	70	18	26.8	25.2	..	..	..	..	..	..

MONTH OF MARCH, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
14	27	18	25	4	7	21	38	5	13	4.97	4.39	4.29	5.06	4.67	15	16	10	1	6.25	
11	25	13	43	5	19	5	18	40	159	4.96	4.12	5.19	5.90	5.04	17	14	7	3	5.11	
13	38	0	0	9	33	9	14	36	110	5.00	5.51	5.74	4.77	5.25	18	13	10	3	4.87	
18	50	10	37	6	17	4	12	38	151	3.03	3.03	3.93	4.03	3.50	9	22	13	3	4.55	
3	..	26	..	18	..	17	..	50	..	....	....	....	....	....	14	17	7	2	1.19?	
8	12	19	37	6	10	4	7	11	15	3.22	3.74	4.90	5.35	4.30	12	19	7	2	....	
17	..	2	..	13	..	3	..	48	69	5.48	5.84	6.48	5.03	5.70	20	11	3	2	2.62	
2	2	6	11	23	37	17	50	9	21	2.74	2.96	3.70	5.16	3.64	10	21	13	2	3.85	
7	15	16	40	2	4	19	42	32	104	5.45	5.87	6.45	5.90	5.91	18	13	7	3	3.84	
7	34	11	30	12	29	25	54	26	83	3.80	3.80	3.80	4.06	3.86	10	21	9	2	6.05	
21	32	13	49	2	4	16	31	24	110	2.38	2.80	3.12	4.38	3.17	7	24	9	5	3.63	
21	36	4	7	4	12	0	0	17	34	3.19	3.29	2.32	3.13	2.98	8	23	8	2	4.06	
5	17	49	45	7	14	12	30	14	39	3.40	4.40	4.90	3.80	4.12	11	20	9	0	0.89	
4	12	13	44	13	27	22	59	10	46	6.90	7.35	8.32	8.90	7.89	20	11	3	0	1.50	
19	16	13	33	22	51	31	47	4	8	6.32	6.09	6.45	9.00	6.96	24	7	2	0	....	
18	32	21	43	23	36	4	7	1	2	3.90	5.50	6.00	6.30	5.42	17	14	5	0	0.51	
36	143	8	15	24	69	0	0	17	53	3.87	4.20	4.90	4.06	4.25	12	19	4	0	1.36	
18	24	33	48	10	16	11	18	3	7	1.35	3.61	4.09	6.26	3.83	11	20	4	0	2.83	
13	35	30	72	26	62	5	12	7	22	4.80	3.72	3.80	2.75	3.52	11	20	3	0	1.63	
54	80	2	2	30	49	12	18	30	44	6.03	6.30	7.18	7.06	6.64	23	8	4	0	1.30	
32	131	7	21	9	23	12	37	8	14	2.00	2.32	3.48	3.16	2.74	9	22	12	0	2.69	
1	1	2	4	2	4	32	43	4	5	3.04	4.51	4.87	5.87	4.57	15	16	9	0	4.65	
11	35	15	59	25	62	4	11	21	50	4.02	4.04	4.02	6.03	4.52	14	17	10	0	4.90	
7	12	42	146	8	21	8	22	11	22	1.90	2.22	4.32	5.06	3.37	9	22	10	0	3.30	
15	41	5	16	7	28	7	20	13	36	4.60	4.54	4.80	3.48	4.35	13	18	11	0	2.77	
19	21	11	11	13	17	29	39	16	23	4.23	5.12	6.03	5.13	5.13	21	10	8	0	3.60	
13	..	21	..	21	..	6	..	21	..	....	....	....	....	....	15	16	8	0	....	
12	20	5	11	9	16	3	9	13	23	3.45	3.26	4.45	4.79	3.98	12	19	6	6	2.57	
22	50	10	12	9	25	23	67	13	16	3.12	4.03	5.25	5.41	4.45	14	17	0	2	0.40	
32	38	15	28	28	54	4	10	13	13	1.70	1.23	2.27	1.00	1.55	8	23	4	2	4.11	
18	54	4	10	16	68	10	22	36	84	5.10	6.40	6.20	5.19	5.72	19	12	5	0	3.40	
13	..	18	..	21	..	15	..	10	..	....	....	....	....	....	16	15	2	1	6.12	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	19	12	6	7	....	

MONTH OF APRIL, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Adams	40.63	44.63	49.03	45.33	44.90	58	27	13.1	16.9	3	6	3	4	22	72
Fort Hamilton	41.30	44.63	53.16	45.33	46.10	66	24	19.9	22.1	12	36	9	22	12	25
Fort Columbus	41.90	46.16	53.30	46.83	47.55	64	25	16.4	22.6	11	30	4	7	11	24
West Point	41.13	46.57	52.60	44.57	46.22	64	24	17.8	22.2	31	31	5	20	0	0
Watervliet Arsenal	37.23	42.00	47.93	42.27	42.36	61	30	18.6	12.4	8	..	0	..	0	..
Madison Barracks	38.06	40.13	48.30	41.16	41.91	70	22	28.1	19.9	15	23	11	19	5	7
Fort Ontario	39.20	42.66	44.66	41.30	41.98	64	26	22.0	16.0	5	..	28	..	0	..
Alleghany Arsenal	38.00	46.79	59.36	47.19	47.84	82	22	34.2	25.8	23	46	18	22	6	9
Carlisle Barracks	40.53	49.60	57.63	47.87	48.90	76	26	27.1	22.9	6	13	9	15	19	34
Fort Mifflin	42.00	48.73	59.80	49.00	49.90	76	24	26.1	25.9	7	20	14	34	15	30
Fort McHenry	45.26	51.36	61.20	50.36	52.05	78	27	26.0	25.0	9	17	7	13	11	15
Fort Monroe	49.83	54.13	59.83	53.36	54.30	76	31	21.7	23.3	12	23	34	50	14	20
Fort Macon	53.17	57.90	65.43	56.66	58.29	78	28	19.7	30.3	25	75	10	28	5	11
Fort Moultrie	60.80	66.73	67.66	63.73	64.73	76	38	11.3	26.7	25	94	7	31	11	40
Fort Brooke	66.46	70.60	79.90	72.70	72.41	86	49	13.6	23.4	1	2	4	7	39	63
Fort Barrancas	63.86	68.96	72.64	66.64	68.02	80	42	12.0	26.0	27	45	5	6	4	6
Mount Vernon Arsenal	57.06	69.56	77.33	63.06	64.75	84	33	19.3	31.7	0	0	12	42	0	0
New Orleans Barracks	62.56	75.95	77.51	67.95	71.00	85	42	14.0	29.0	22	33	11	14	26	34
Fort Pike	62.50	71.70	76.80	68.96	70.00	86	42	16.0	28.0	8	14	5	5	14	19
Baton Rouge Barracks	60.83	65.56	77.20	66.93	67.63	82	46	14.4	21.6	0	0	28	44	14	22
Fort Washita	53.87	62.17	69.47	61.90	61.85	85	30	23.2	31.8	13	16	26	80	28	90
Fort Smith	50.60	59.73	67.26	60.23	59.46	83	43	23.5	16.5	0	0	0	0	24	44
Fort Gibson	52.97	61.73	68.16	59.00	60.46	84	33	23.5	27.5	23	59	16	39	10	26
Fort Scott	45.56	52.83	62.13	52.13	53.17	79	25	25.8	28.2	17	38	19	48	10	19
Jefferson Barracks	48.00	54.96	63.20	54.96	55.28	83	30	27.7	25.3	16	35	15	34	29	44
St. Louis Arsenal	42.26	49.96	66.36	54.86	53.36	86	26	32.6	27.4	14	28	8	21	7	11
Newport Barracks	47.60	54.33	61.20	54.80	54.50	87	27	32.5	27.5	15	..	5	..	28	..
Detroit Barracks	38.66	46.13	52.90	44.70	45.60	66	26	20.4	19.6	26	63	31	69	9	20
Fort Mackinac	30.16	35.23	38.26	29.53	33.30	80	18	16.7	15.3	17	48	14	23	16	48
Fort Snelling	33.06	39.60	46.33	39.76	39.69	60	13	20.3	26.7	15	61	8	12	5	12
Fort Leavenworth	43.56	57.30	60.56	50.50	53.00	80	24	27.0	29.0	1	4	19	64	6	12
Fort Kearney	39.77	47.20	56.07	44.63	46.92	80	22	33.1	24.9	12	..	39	..	5	..
Santa Fé	41.40	......	66.67	50.80	52.96	80	26	27.0	27.0	..	..	..	..	..	..

MONTH OF APRIL, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	16	21	26	8	12	43	69	11	41	7.53	6.60	6.50	7.03	6.91	20	10	5	1	2.10	
10	24	8	19	13	36	6	25	50	237	6.16	5.26	5.46	7.73	6.15	20	10	3	0	0.52	
13	31	9	21	8	16	16	29	48	184	6.16	6.93	7.40	6.80	6.82	23	7	5	0	0.62	
11	31	22	66	11	20	3	11	37	155	4.37	4.47	5.00	5.33	4.79	14	16	7	0	0.90	
8	..	25	..	13	..	51	..	12	..	....	....	....	....	....	17	13	7	3	1.01	
10	16	29	44	11	14	18	26	11	21	5.20	5.23	5.24	4.43	5.03	66	14	7	1	....	
18	59	11	..	17	35	0	..	41	188	5.90	6.56	7.40	5.30	6.29	23	7	3	0	1.65	
0	0	15	44	29	90	9	34	20	61	5.51	5.31	4.79	4.79	5.27	17	13	11	1	0.83	
12	23	7	14	9	16	32	90	26	97	6.86	7.36	8.00	7.23	7.36	20	10	4	2	0.68	
9	24	14	25	19	36	27	76	15	54	5.20	4.76	5.80	5.16	5.23	18	12	8	0	1.64	
21	26	12	17	10	30	27	91	23	99	4.50	4.93	4.86	5.70	4.99	16	14	8	2	0.87	
9	13	9	20	13	27	14	28	15	29	5.30	5.66	5.40	5.40	5.44	14	16	7	0	0.98	
5	12	50	96	12	40	10	21	7	17	5.73	7.20	6.17	6.57	6.42	22	8	5	1	2.53	
14	43	15	65	28	99	12	31	8	29	9.33	9.40	9.20	9.60	9.38	27	3	3	0	0.50	Weather observa-
17	35	9	19	15	36	32	52	3	5	6.26	6.46	5.73	6.93	6.34	21	9	1	0	....	[tions inaccurate.
18	36	40	79	6	18	6	10	9	22	5.60	7.00	8.50	7.50	7.15	23	7	2	0	1.00	
54	153	0	0	18	48	0	0	36	115	4.40	5.83	5.76	6.00	5.49	15	15	5	0	3.06	
11	18	29	41	1	2	10	14	4	8	3.53	4.80	4.50	7.13	4.99	15	15	7	0	2.43	Temp. inaccurate at
27	39	9	15	24	47	8	19	18	37	3.60	2.80	3.20	3.00	3.15	7	23	7	0	2.14	[9 a. m.
53	82	4	6	21	30	0	0	0	0	7.80	7.11	7.10	7.40	7.35	20	10	3	0	2.50	
25	96	18	64	0	0	9	17	1	1	4.26	4.96	5.76	6.36	5.33	15	15	12	1	6.96	
8	16	6	8	9	15	68	110	1	2	3.46	4.20	4.66	6.00	4.58	12	18	11	0	8.45	Temp. inaccurate.
22	60	9	20	18	61	2	5	20	58	4.70	4.20	4.30	4.50	4.40	16	14	9	0	2.17	
13	31	27	93	8	40	11	30	15	38	3.96	3.50	4.13	4.73	4.08	12	18	12	0	5.38	
16	42	2	3	14	38	15	40	13	17	5.13	3.50	4.76	5.46	5.21	15	15	7	0	1.53	
16	20	9	10	18	21	19	33	11	27	5.03	5.28	7.01	5.22	5.64	21	9	8	0	4.08	
1	..	21	..	19	..	17	..	14	..	....	....	....	....	....	22	8	8	1	....	
8	25	9	18	10	20	14	48	13	39	4.90	4.40	4.53	3.90	4.43	10	20	9	1	2.90	
4	11	4	6	22	64	19	56	24	61	3.50	4.03	4.30	5.83	4.41	12	18	6	3	1.99	
21	56	8	14	7	21	14	42	42	171	1.00	1.70	1.10	0.20	1.00	11	19	7	0	5.62	Notation of clouds in-
27	106	8	18	11	65	11	20	37	105	5.20	6.12	6.25	5.25	5.70	20	10	7	1	2.40	[accurate.
14	..	16	..	21	..	6	..	7	..	....	....	....	....	....	20	10	5	0	7.86?	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	16	14	7	1	....	

MONTH OF MAY, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Adams	49.35	53.74	57.22	52.45	53.19	66	40	12.8	13.2	1	1	2	5	13	15
Fort Trumbull	47.83	53.29	57.35	50.83	52.32	67	40	14.7	12.3	..	..	..	..	..	..
Fort Hamilton	49.55	54.12	59.51	53.35	54.13	80	40	25.9	14.1	9	27	30	84	18	39
Fort Columbus	50.32	54.58	60.26	54.84	55.00	74	38	19.0	17.0	8	18	33	68	17	40
West Point	49.29	56.06	61.35	54.68	55.35	81	39	25.6	16.4	21	51	8	18	1	2
Watervliet Arsenal	50.64	55.55	58.42	52.51	54.28	82	26	27.7	28.3	3	..	0	..	0	..
Madison Barracks	47.43	54.70	59.16	52.56	53.46	74	37	20.5	16.5	6	9	19	29	13	17
Fort Ontario	47.80	54.35	54.64	48.00	51.20	73	38	21.8	13.2	0	..	21	..	0	..
Alleghany Arsenal	51.41	61.70	70.33	57.95	60.35	82	39	21.6	21.4	35	38	21	25	16	16
Carlisle Barracks	49.00	61.38	46.35	55.32	58.01	86	40	28.0	18.0	5	8	7	15	50	109
Fort Mifflin	50.16	88.16	66.25	56.38	57.74	85	41	27.3	16.7	14	34	24	70	30	56
Fort McHenry	53.38	61.77	70.16	59.45	61.19	87	44	25.8	17.2	13	24	47	103	8	16
Fort Monroe	58.19	61.45	66.68	60.27	61.65	87	50	25.4	11.6	1	1	47	86	37	68
Fort Macon	61.87	66.74	72.90	64.77	66.57	86	50	19.4	16.6	24	65	33	89	7	13
Fort Moultrie	69.48	74.16	75.26	71.71	72.65	84	54	11.3	18.7	30	113	13	47	22	74
Fort Brooke	74.63	78.25	85.09	78.90	79.22	90	67	10.8	12.2	0	0	11	32	35	53
Fort Barrancas	70.58	77.13	77.90	72.74	74.56	82	62	7.4	12.6	19	29	8	11	7	21
Mount Vernon Arsenal	63.67	75.77	82.03	68.51	72.50	90	54	17.5	18.5	0	0	12	42	3	14
New Orleans Barracks	70.06	81.69	81.85	73.68	76.82	92	65	15.2	11.8	13	24	5	5	29	42
Fort Pike	68.20	78.80	81.40	75.30	75.92	90	63	14.1	12.9	5	5	4	4	22	38
Fort Washita	62.45	69.64	77.03	98.22	69.33	85	54	15.7	15.3	21	64	17	50	29	91
Fort Smith	50.74	60.00	77.51	69.48	64.43	89	43	24.6	21.4	0	0	1	2	25	46
Fort Gibson	61.03	70.09	77.61	66.77	68.87	86	52	17.1	16.9	14	24	17	31	16	37
Fort Scott	56.00	64.38	71.22	62.29	63.47	81	42	17.5	21.5	5	6	26	47	16	31
Jefferson Barracks	57.13	65.45	73.26	64.74	65.15	86	44	20.8	21.2	7	16	16	29	35	55
St. Louis Arsenal	50.61	61.93	77.74	65.58	63.96	84	38	20.0	26.0	0	0	8	8	5	10
Newport Barracks	57.22	63.42	73.64	66.51	65.30	89	40	23.8	25.2	3	..	17	..	25	..
Detroit Barracks	50.38	56.80	61.29	55.96	56.11	80	41	33.9	15.1	13	36	30	58	38	69
Fort Mackinac	41.38	46.87	52.06	43.93	46.06	70	28	24.0	18.0	15	27	28	63	28	53
Fort Snelling	48.38	55.84	61.13	53.74	54.77	80	24	25.2	30.8	16	34	27	48	18	35
Fort Leavenworth	55.77	66.71	70.64	60.67	63.45	80	40	16.5	23.5	1	1	35	97	4	16
Fort Kearney	51.41	60.20	66.29	55.07	58.24	78	34	19.7	24.3	17	..	16	..	16	..
Monterey	51.15	53.49	61.43	52.74	54.70	72	40	17.3	14.7	11	21	6	21	13	45
Santa Fé	48.45	......	77.77	59.10	61.77	84	36	22.2	25.8	..	..	..	..	..	..

MONTH OF MAY, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
38	45	34	63	17	51	27	37	2	5	4.61	4.74	4.36	4.84	4.63	14	17	5	0	4.26	
..	..	..	..	..	..	..	..	..	..	2.05	4.00	4.06	2.09	3.05	11	20	11	0	....	
6	15	32	83	19	68	2	7	8	28	5.30	4.70	3.40	5.20	4.65	16	15	9	0	3.75	
17	39	13	24	12	34	11	25	13	40	4.79	5.06	4.42	4.38	4.66	16	15	11	0	3.47	
27	62	24	54	10	25	5	10	28	69	3.35	3.42	2.55	3.09	3.10	9	22	16	0	6.10	
0	..	43	..	32	..	36	..	6	..	....	....	....	....	....	17	14	9	0	5.53	
14	15	23	29	25	50	13	25	2	3	3.66	3.80	3.86	3.53	3.71	12	19	11	0	1.89	
34	..	3	..	26	..	0	..	40	..	6.16	7.48	7.48	6.12	6.81	20	11	8	0	3.00	Inaccurate.
5	5	10	18	20	38	12	43	5	6	3.93	3.54	3.83	4.90	4.05	9	22	15	0	5.83	
17	25	15	41	2	3	24	56	4	12	6.09	5.04	6.06	6.02	5.80	20	11	11	0	3.16	
10	21	17	37	12	29	12	27	5	10	4.77	3.90	4.00	3.32	3.99	15	16	10	0	4.04	
19	46	7	15	18	45	6	16	6	15	2.25	3.48	3.19	3.70	3.15	9	22	14	0	4.18	
11	16	8	18	10	21	8	16	2	2	3.26	3.68	4.09	3.64	3.67	11	20	13	0	3.11	
5	9	43	72	2	3	1	2	3	6	4.16	4.45	4.54	5.25	4.60	16	15	12	0	2.07	
14	44	11	43	15	49	14	41	5	27	7.83	8.25	7.97	8.06	8.02	25	6	7	0	4.60	
14	31	12	25	20	52	32	54	0	0	5.41	5.25	3.74	6.16	5.14	15	16	8	0	....	
15	41	31	77	23	39	9	13	3	10	4.70	5.20	4.50	4.80	4.80	19	12	4	0	2.29	
54	174	0	0	30	92	2	8	23	86	5.53	4.40	5.00	4.77	4.92	15	16	7	0	6.11	
7	10	21	31	13	19	22	29	4	6	4.29	4.23	4.55	8.03	5.25	17	14	9	0	8.01	
16	27	10	22	40	60	11	16	9	18	3.20	4.30	4.50	2.70	3.68	13	18	10	0	5.60	
33	115	9	27	2	7	12	42	1	4	2.74	3.67	4.84	5.12	4.09	11	20	13	0	14.61	
8	16	5	6	12	17	71	114	1	2	4.06	4.81	5.70	6.58	5.29	17	14	13	0	8.40	
23	78	13	31	15	29	4	8	22	38	3.09	3.45	5.06	6.35	4.48	14	17	14	0	7.52	
13	30	28	73	15	33	8	21	13	26	2.03	2.80	3.22	4.60	3.16	7	24	12	0	12.20	
23	66	1	3	14	35	9	19	19	43	4.29	3.93	4.51	6.25	4.74	14	17	7	0	2.00	
16	23	12	14	17	26	34	48	18	22	5.01	6.07	7.01	6.14	6.06	20	11	7	0	6.39	
7	..	12	..	25	..	33	..	2	..	....	....	....	....	....	21	10	12	0	....	
12	21	11	32	6	11	10	27	4	8	4.48	5.19	5.74	4.40	4.95	16	15	9	0	2.10	
10	14	8	10	15	30	10	13	10	30	4.06	4.83	7.32	4.70	5.23	15	16	5	0	2.60	
35	58	4	8	6	9	7	8	11	19	1.19	1.22	1.48	1.06	1.23	10	21	9	0	6.57	Notation of weather
30	109	6	23	12	36	0	0	36	71	3.27	5.20	5.25	3.27	4.24	15	16	10	0	5.10	[inaccurate.
27	..	17	..	12	..	5	..	14	..	....	....	....	....	....	10	21	9	0	10.74?	
5	16	5	17	26	86	13	30	27	76	5.00	4.60	4.00	4.10	4.42	10	21	1	0	0.01	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	26	5	2	1	....	

MONTH OF JUNE, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Preble	66.00	68.45	72.10	68.15	68.92	89	50	20.1	18.9	9	13	3	5	2	4
Fort Trumbull	58.03	67.07	73.07	66.03	66.04	91	50	25.0	16.0	..	..	..	..	..	..
Fort Adams	62.47	68.23	72.20	65.27	67.04	89	52	22.0	15.0	0	0	2	11	2	7
Fort Hamilton	62.93	68.20	76.40	68.50	69.01	93	51	24.0	18.0	13	33	10	28	10	25
Fort Columbus	63.70	68.23	76.16	69.93	69.50	90	52	30.5	17.5	2	2	23	52	6	7
West Point	60.80	67.83	74.43	66.83	67.47	90	49	22.5	18.5	28	70	4	5	0	0
Watervliet Arsenal	65.17	69.00	73.53	68.73	68.12	90	49	21.9	19.1	4	..	0	..	0	..
Madison Barracks	59.70	68.63	74.03	66.13	67.12	87	49	19.9	18.1	4	8	9	15	0	0
Fort Ontario	61.03	69.60	70.66	62.76	66.01	86	51	20.0	15.0	0	0	15	25	0	0
Alleghany Arsenal	62.16	73.43	79.86	68.26	70.95	91	52	20.1	18.9	14	15	10	12	27	28
Carlisle Barracks	62.23	76.37	81.02	68.00	71.92	95	53	23.1	18.9	4	14	6	10	26	44
Fort Mifflin	64.46	71.50	82.93	71.36	72.56	99	53	26.4	19.6	3	9	14	30	13	24
Fort McHenry	65.86	75.87	85.77	73.20	75.17	100	55	24.8	20.2	19	25	8	15	12	19
Fort Monroe	70.13	78.40	80.86	72.86	75.56	96	62	20.4	13.6	2	3	9	18	29	53
Fort Macon	71.46	77.93	84.23	73.26	76.72	93	60	16.3	16.7	10	27	9	14	15	23
Fort Moultrie	73.36	80.40	83.16	78.33	81.31	92	72	10.7	9.3	3	10	10	38	32	98
Fort Marion	74.96	81.83	82.10	77.66	79.14	88	71	8.9	8.1	0	0	5	26	33	113
Fort Brooke	75.86	80.50	86.00	80.46	80.71	91	70	10.3	10.7	1	3	22	14	32	50
Fort Barrancas	76.53	82.03	83.20	78.10	79.96	87	67	7.0	13.0	15	29	5	7	14	23
Mount Vernon Arsenal	69.30	80.10	85.60	72.60	76.90	95	60	18.1	16.9	0	0	6	21	1	2
New Orleans Barracks	74.90	85.28	86.16	78.00	81.08	92	70	10.9	11.1	2	3	2	2	31	38
Fort Pike	76.80	84.70	87.20	80.40	82.27	94	71	11.7	11.3	2	2	3	3	30	40
Fort Towson	70.23	77.73	82.03	74.46	76.11	88	63	11.9	13.1	1	4	0	0	19	29
Fort Washita	68.80	77.46	83.63	74.23	76.04	90	62	14.0	14.0	2	5	11	32	30	98
Fort Smith	65.53	75.36	87.86	78.43	76.80	93	47	16.2	29.8	0	0	0	0	21	32
Fort Gibson	68.86	78.20	83.03	73.00	75.77	90	59	14.2	19.8	4	10	8	21	8	25
Fort Scott	65.33	75.66	81.93	71.50	73.60	90	56	16.4	17.6	5	8	12	15	14	14
Jefferson Barracks	66.86	72.43	81.86	72.96	73.53	84	57	15.5	16.5	3	7	3	3	64	100
St. Louis Arsenal	64.28	77.23	88.22	77.04	76.69	90	54	13.3	22.7	0	0	2	2	21	23
Newport Barracks	69.26	75.83	83.83	76.43	76.34	93	56	16.7	20.3	2	4	6	29	28	73
Detroit Barracks	62.56	71.50	76.66	68.66	69.85	89	53	19.2	16.8	22	34	19	33	20	35
Fort Mackinac	54.96	59.53	64.50	56.63	58.90	81	40	22.1	18.9	9	12	22	43	6	14
Fort Snelling	62.13	70.80	73.90	66.07	68.22	86	46	17.8	22.2	10	10	15	18	14	37
Fort Leavenworth	65.96	76.56	79.26	71.50	73.32	86	58	12.7	15.3	5	10	20	51	18	41
Fort Kearney	57.97	71.90	77.97	63.97	67.95	87	50	19.1	17.9	1	1	18	32	28	46
Fort Croghan	74.27	76.83	85.90	78.00	78.75	96	62	17.2	16.8	0	0	0	0	6	14
Santa Fē	54.73	......	85.27	74.00	71.33	91	48	19.7	23.3	..	..	..	..	..	..
Monterey	50.87	56.93	64.63	54.33	56.69	92	46	35.3	10.7	1	3	33	59	12	27

MONTH OF JUNE, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	2	3	7	9	15	34	49	13	18	....	....	....	....	....	15	5	..	..	....	Observations for the [last 20 days.
..	..	..	..	..	..	..	..	..	..	5.07	6.02	6.07	4.09	5.31	22	8	6	0	....	
9	18	54	61	11	22	37	78	5	15	6.30	6.17	6.53	6.03	6.25	19	11	5	0	2.30	
4	7	25	52	22	52	6	15	30	62	3.02	5.30	7.20	7.00	5.63	17	13	4	0	0.82	
15	28	21	46	23	40	12	23	18	36	4.26	5.00	6.80	6.23	5.57	15	15	7	0	0.78	
18	38	27	63	13	17	1	1	29	57	4.23	4.17	4.47	6.53	4.85	14	16	6	0	1.08	
0	..	44	..	32	..	22	..	18	..	....	....	....	....	....	17	13	8	0	5.52	
3	6	44	89	38	76	8	13	3	8	5.86	5.93	6.46	6.43	6.17	18	12	7	0	2.07	
25	68	0	0	38	98	0	0	42	102	7.00	7.20	8.46	7.20	7.46	22	8	5	0	1.66	
17	26	5	12	31	52	7	14	9	18	2.73	4.73	4.70	6.20	4.59	16	14	11	0	2.84	
19	30	12	26	2	3	48	90	3	9	7.05	7.06	7.06	8.13	7.32	24	6	7	0	1.72	
9	19	30	49	18	37	29	53	4	7	4.96	5.70	5.33	5.53	5.38	18	12	6	0	2.26	
36	42	18	31	12	14	6	7	9	22	4.36	4.06	4.33	5.80	4.63	11	19	5	0	1.50	
20	26	16	26	29	37	10	13	5	5	4.96	5.76	5.76	6.43	5.72	20	10	9	0	0.70	
4	6	28	44	49	91	5	10	2	5	4.70	4.86	5.10	5.70	5.11	17	13	5	0	0.71	
9	29	17	56	18	53	26	67	5	22	6.10	6.26	6.36	6.90	6.39	22	8	3	0	2.60	
30	61	16	25	5	8	15	16	1	2	4.80	5.07	5.63	5.53	5.91	19	11	14	0	4.24	
20	42	13	29	10	24	18	25	4	7	5.80	4.30	2.70	6.16	4.74	16	14	6	0	....	
8	16	55	127	5	11	13	22	0	0	5.31	7.29	7.60	7.00	6.80	16	14	11	0	3.59	
27	66	8	24	57	194	1	2	20	72	3.80	5.00	3.86	4.40	4.26	15	15	12	0	9.25	
11	16	41	53	10	13	13	18	2	3	4.63	4.00	3.56	6.46	4.66	15	15	12	0	3.79	
7	9	13	18	38	65	10	13	14	20	2.30	3.60	4.10	2.20	3.05	11	19	9	0	2.60	
19	42	32	89	2	5	2	4	1	1	2.13	2.06	3.03	4.40	2.88	8	22	12	0	6.21	
39	56	17	67	18	72	3	7	1	3	3.56	3.36	4.96	5.80	4.42	10	20	10	0	4.00	
9	11	8	8	19	20	58	63	1	1	5.93	6.73	5.33	5.96	5.99	18	12	9	0	6.79	
31	64	16	39	24	69	17	30	12	18	4.36	4.56	4.40	6.03	4.83	15	15	12	0	9.17	
17	26	39	76	16	25	14	19	3	7	3.30	2.96	2.96	4.93	3.53	13	17	9	0	3.49	
16	36	1	1	9	17	17	37	7	9	4.73	4.60	4.73	5.70	4.94	15	15	12	0	5.88	
23	26	31	37	15	24	19	27	4	5	6.11	8.05	8.04	7.26	7.36	22	8	12	0	15.70	Inaccurate.
5	7	29	25	26	50	21	25	3	3	4.10	4.50	5.40	5.40	4.82	12	18	..	..	....	
9	20	3	9	4	12	39	61	4	6	5.56	6.36	6.76	4.16	5.71	22	8	8	0	3.96	
16	19	15	24	21	32	23	54	8	15	4.50	5.20	6.20	6.96	5.71	18	12	4	0	1.20	
23	37	20	45	22	51	4	4	12	17	1.63	2.03	1.73	1.13	1.63	12	18	9	0	3.14	
34	85	13	27	8	22	6	13	16	31	4.03	5.90	6.20	6.40	5.63	18	12	6	0	2.26	
17	41	23	30	24	59	6	12	3	4	5.86	5.93	5.53	6.43	5.93	18	12	9	0	4.00	
39	100	16	31	55	141	5	12	0	0	3.17	3.00	3.71	4.37	4.56	11	19	6	0	3.70	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	24	6	4	0	....	
10	32	6	16	26	58	4	8	14	30	3.10	3.00	4.15	3.10	3.44	10	20	2	0	....	

MONTH OF JULY, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	58.02	64.30	65.33	57.90	61.38	82	48	20.6	13.4	8	20	4	12	1	1
Fort Preble	67.20	69.26	72.40	69.90	69.69	83	55	13.3	14.7	17	30	4	6	2	3
Fort Constitution	62.96	70.03	75.45	66.54	68.74	85	47	16.3	21.7	24	55	4	13	0	0
Fort Trumbull	65.23	73.10	77.32	70.32	71.49	92	52	20.5	19.5	4	8	23	52	2	5
Fort Adams	66.55	72.61	77.22	69.52	71.47	91	56	19.5	15.5	6	19	6	19	8	17
Fort Hamilton	65.80	71.50	78.90	70.10	71.57	98	58	26.4	13.6	13	34	22	65	3	7
Fort Columbus	66.61	73.19	80.19	71.22	72.80	94	57	21.2	15.8	13	31	10	19	9	13
West Point	65.10	73.16	79.04	70.29	71.90	94	51	22.1	20.9	15	59	11	38	0	0
Plattsburg Barracks	60.35	70.61	79.23	69.77	70.00	96	48	26.0	22.0	10	22	4	11	9	24
Madison Barracks	64.00	74.09	78.87	71.19	72.04	90	48	18.0	24.0	6	23	7	15	5	6
Fort Ontario	68.29	76.16	79.70	69.87	73.50	90	52	16.5	21.5	0	0	22	62	0	0
Fort Niagara	64.16	71.06	74.35	69.80	69.84	90	56	20.2	13.8	3	10	6	16	17	50
Alleghany Arsenal	61.90	73.16	82.03	68.93	71.50	93	50	21.5	21.5	25	36	21	37	8	8
Carlisle Barracks	61.23	78.14	83.16	70.20	73.18	95	50	21.8	23.2	6	15	15	32	22	42
Fort Mifflin	66.61	71.06	83.61	72.12	73.35	96	55	22.6	18.4	10	26	13	30	15	35
Fort McHenry	70.61	77.16	81.41	75.51	76.17	93	59	16.8	17.2	21	51	22	42	12	17
Fort Monroe	72.55	75.06	80.06	74.13	75.45	93	62	17.5	13.5	0	0	21	42	39	73
Fort Macon	71.32	78.74	84.35	79.70	78.53	92	61	13.5	17.5	10	23	19	46	4	7
Fort Moultrie	75.89	79.80	81.29	78.58	78.89	88	68	9.1	10.9	18	65	13	50	10	31
Fort Marion	75.34	83.78	83.00	78.70	80.20	90	71	9.8	9.2	0	0	9	44	16	34
Fort Brooke	77.64	81.54	86.38	81.25	81.70	92	71	10.3	10.7	1	1	10	18	11	16
Fort Barrancas	75.28	83.90	84.14	74.18	79.36	87	69	7.6	10.4	11	18	3	4	5	13
Mount Vernon Arsenal	70.80	80.15	81.90	72.25	76.27	93	64	16.7	12.3	1	4	14	44	0	0
New Orleans Barracks	76.57	83.72	85.31	78.85	81.10	92	73	10.9	8.1	3	8	7	7	15	19
Fort Pike	78.35	84.73	85.48	79.96	82.13	92	72	9.9	10.1	2	2	3	4	15	25
Baton Rouge Barracks	73.03	85.06	86.48	73.71	79.77	94	71	14.2	8.8	1	2	5	16	18	47
Fort Towson	72.80	79.35	84.24	76.32	78.18	92	70	13.8	8.2	7	18	3	7	21	41
Fort Washita	71.19	79.09	86.00	75.03	77.83	96	62	18.2	15.8	3	10	28	99	22	68
Fort Smith	71.96	79.29	88.25	79.96	79.86	95	65	15.1	14.9	0	0	1	1	43	47
Fort Gibson	72.32	80.22	83.45	75.16	77.79	92	67	14.2	10.8	19	30	17	35	17	36
Fort Scott	68.32	77.67	81.32	73.19	75.12	92	53	16.9	22.1	14	15	31	44	19	23
Jefferson Barracks	69.45	75.67	81.80	73.84	75.19	91	54	15.8	21.2	3	6	7	17	27	51
St. Louis Arsenal	62.09	77.80	86.38	73.90	75.04	96	50	21.0	25.0	22	29	7	9	24	37
Detroit Barracks	64.77	75.03	79.77	70.82	72.60	93	54	20.4	18.6	24	42	22	40	13	19
Fort Gratiot	63.48	70.09	75.77	72.00	70.33	90	50	20.7	20.3	21	39	13	24	3	4
Fort Mackinac	62.51	67.71	74.50	63.00	66.93	88	52	21.1	14.9	13	21	3	4	11	22
Fort Ripley	56.48	71.19	79.13	63.93	67.68	95	40	27.3	27.7	13	43	2	7	8	29
Fort Snelling	64.32	74.67	78.78	68.74	71.63	93	51	21.4	20.6	6	8	8	8	10	10
Fort Leavenworth	69.54	76.64	79.41	72.71	74.57	88	54	13.4	20.6	18	29	25	45	25	43
Fort Kearney	63.32	72.96	77.90	69.64	70.95	92	45	21.0	26.0	7	14	10	16	17	25
Fort Croghan	75.54	81.25	86.45	80.38	80.90	96	70	15.1	10.9	0	0	4	7	0	0
San Antonio	78.09	79.51	84.35	79.96	80.48	90	74	9.5	6.5	0	0	7	10	8	12
Fort Polk	77.67	84.45	84.09	78.80	81.25	89	73	7.7	8.3	0	0	0	0	0	0
Fort McIntosh	77.83	85.00	97.32	85.38	86.48	103	75	16.6	11.4	0	0	0	0	0	0
San Diego	72.53	74.13	76.20	74.20	74.27	78	70	3.7	4.3	..	..	..	..	..	..
Monterey	52.96	61.51	71.54	60.80	61.70	78	46	16.3	15.7	4	16	40	88	9	22
Sacramento	55.61	77.11	88.33	68.05	72.25	96	52	23.7	20.3	0	0	0	0	0	0

MONTH OF JULY, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inc. e	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	9	42	124	11	22	4	5	7	26	1.60	2.18	3.01	1.12	1.98	14	17	5	0	1.17	
16	23	12	17	14	32	32	54	17	25	4.20	5.60	5.00	4.26	4.77	17	14	5	0	0.40?	Therm. protected.
9	20	49	80	6	16	18	41	13	26	4.22	5.45	5.38	2.32	4.34	16	15	7	0	1.35	
19	34	1	2	34	75	18	33	23	27	4.48	6.35	5.61	5.80	5.56	19	12	10	0	....	
1	3	57	99	9	27	30	62	5	26	4.97	5.22	6.39	6.30	5.72	20	11	5	0	1.67	
7	14	25	57	32	89	6	12	16	37	5.90	6.10	6.40	7.00	6.35	23	8	5	0	2.76	
10	17	29	75	22	44	18	29	13	26	6.42	6.48	6.48	5.61	6.25	22	9	5	0	1.43	
25	59	41	79	11	23	4	8	17	50	4.19	5.77	4.71	5.51	5.04	15	16	8	0	3.15	
17	40	34	70	14	21	23	45	7	20	7.35	7.52	7.03	6.95	7.21	21	10	5	0	0.95	
8	21	31	89	36	84	17	36	6	20	6.51	6.80	5.96	6.93	6.78	23	8	6	0	0.91	
21	39	0	0	51	123	0	0	30	85	8.12	8.83	8.67	7.74	8.34	24	7	4	0	0.69	
17	51	26	89	15	53	18	58	8	29	6.90	6.14	7.70	7.22	7.00	17	14	4	0	2.63	
20	33	13	27	21	61	5	7	11	26	4.00	5.67	5.32	6.58	5.39	16	15	10	0	1.26	
10	18	19	53	4	6	43	73	5	15	8.80	8.90	8.24	9.30	8.81	24	7	5	0	0.45	
19	34	19	33	8	19	30	57	10	23	5.12	5.06	5.16	5.77	5.28	16	15	8	0	2.16	
16	25	15	37	29	45	1	3	5	11	5.06	4.71	4.77	6.06	5.12	17	14	9	0	2.06	
29	41	9	14	17	28	9	16	0	0	3.90	4.80	4.13	5.68	4.62	12	19	12	0	4.13	
14	25	12	21	54	117	4	7	3	6	4.00	4.45	4.12	4.87	4.36	15	16	14	0	7.13	
11	31	26	77	21	59	24	61	1	2	5.45	6.00	5.32	6.58	5.83	22	9	13	0	7.60	
31	82	5	14	19	37	20	29	1	1	5.54	6.90	6.74	5.60	6.20	21	10	15	0	3.47	
66	103	4	8	11	23	11	18	10	13	5.87	5.29	2.83	4.84	4.70	14	17	15	0	8.74	
14	25	54	86	18	34	11	18	1	2	2.70	4.17	4.20	3.17	3.56	11	20	14	0	7.45	
51	151	1	5	42	118	6	18	9	28	3.50	3.20	2.90	2.22	2.95	8	23	17	0	14.56	
14	16	25	32	5	5	6	8	3	5	2.57	2.90	1.24	2.54	2.31	4	17	15	0	11.09	First 23 days.
18	22	33	48	27	45	11	13	7	7	3.10	3.80	5.90	4.40	4.05	13	18	13	0	6.30	
25	50	26	64	25	68	14	45	1	3	5.00	7.87	6.00	6.00	6.22	16	15	17	0	10.92	
12	25	28	56	2	3	1	1	0	0	1.90	2.30	2.70	4.00	2.73	14	17	16	0	10.76	
28	81	22	72	16	57	4	11	1	2	4.00	3.70	4.83	6.61	4.78	13	18	16	0	13.40	
13	16	0	0	20	21	44	45	1	2	5.22	5.90	5.67	6.00	5.70	19	12	14	0	7.90	
8	23	16	40	28	54	2	3	17	30	3.45	3.93	4.35	6.32	4.51	15	16	15	0	8.72	
16	22	29	61	13	39	0	0	2	6	2.96	3.38	3.35	4.96	3.66	9	22	14	0	5.77	
21	62	42	92	18	62	3	6	3	6	4.00	4.26	4.35	6.55	4.79	16	15	12	0	7.70	
10	14	22	30	8	12	13	24	7	16	6.00	6.70	7.70	8.80	7.30	17	14	11	0	13.67	Clearness inaccurate.
18	24	11	27	11	26	17	35	8	16	5.70	6.08	7.35	4.03	5.79	20	11	7	0	2.35	
12	16	30	40	29	48	7	15	3	9	5.13	5.22	5.22	4.29	4.97	19	12	5	0	1.80	
9	12	18	24	17	27	31	67	22	68	5.80	6.45	6.00	7.54	6.44	20	11	6	0	2.89	
13	35	24	80	25	90	16	66	9	33	4.80	5.20	6.10	6.80	5.65	18	13	10	0	....	
42	54	29	55	6	14	6	14	17	26	1.48	1.87	1.54	1.19	1.52	18	13	9	0	7.59	
34	77	11	25	3	10	4	11	4	7	2.30	2.29	3.00	3.26	2.71	20	11	10	0	6.03	
18	32	58	111	9	15	3	3	2	5	4.30	5.13	5.36	6.20	5.24	14	17	8	0	7.70	
13	33	44	80	55	126	4	9	2	9	1.93	2.22	4.19	4.87	3.30	15	16	5	0	3.00	
59	118	38	62	6	6	0	0	0	0	4.30	7.40	7.90	5.70	6.33	18	13	8	0	....	
61	194	34	117	29	80	0	0	0	0	8.10	8.30	8.50	8.50	8.35	27	4	3	0	....	
120	365	0	0	0	0	0	0	3	7	7.16	6.70	5.51	7.25	6.66	24	7	5	0	2.95	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	..	..	....	
7	21	12	36	32	55	4	10	4	4	3.10	4.00	3.40	3.00	3.38	12	19	0	0	0.00	
11	25	33	66	15	43	4	6	0	0	9.30	9.10	9.10	9.00	9.12	16	2	0	0	0.00	Last 18 days.

MONTH OF AUGUST, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	58.70	62.32	68.87	59.45	62.36	79	50	16.6	12.4	5	17	12	47	13	45
Fort Preble	68.20	68.18	72.50	69.22	69.52	82	60	12.5	9.5	15	26	3	7	9	17
Fort Constitution	64.51	69.12	74.19	67.29	68.78	86	57	17.2	11.8	24	41	6	11	20	37
Fort Trumbull	66.42	72.29	76.96	70.90	71.14	81	57	9.9	14.1	2	2	25	49	4	7
Fort Adams	67.87	72.64	76.16	70.71	71.84	85	63	13.2	8.8	11	18	3	8	31	47
Fort Hamilton	67.20	70.70	79.30	73.10	72.57	86	62	13.4	10.6	12	30	11	28	0	0
Fort Columbus	67.12	72.45	78.71	71.06	72.33	84	62	11.7	10.3	14	24	15	28	9	12
West Point	64.58	70.13	75.45	68.35	69.63	83	60	13.4	9.6	23	78	8	18	3	6
Plattsburg Barracks	61.61	69.30	76.13	66.80	68.48	84	49	15.5	19.5	2	2	0	0	16	22
Madison Barracks	63.58	72.51	77.83	70.45	71.09	87	54	15.9	17.1	10	16	8	10	0	0
Fort Ontario	62.90	72.90	78.48	69.61	70.97	88	59	17.0	12.0	0	0	20	53	0	0
Fort Niagara	63.27	69.45	72.26	68.10	68.27	82	57	13.7	11.3	23	55	4	8	11	26
Alleghany Arsenal	60.70	71.22	79.96	67.30	69.79	88	49	18.2	20.8	24	28	10	10	10	15
Carlisle Barracks	60.27	78.40	84.20	66.40	72.32	95	49	22.7	23.3	13	35	4	10	24	33
Fort Mifflin	65.96	73.61	84.00	71.87	73.86	90	58	16.1	15.9	6	8	4	10	24	40
Fort McHenry	69.61	76.51	81.67	74.09	75.47	89	60	13.5	15.5	19	35	7	9	4	13
Fort Monroe	72.13	75.42	81.51	75.00	76.01	92	65	16.0	11.0	8	11	23	55	34	54
Fort Macon	79.19	80.70	88.48	78.48	81.71	95	71	13.3	10.7	21	48	32	57	7	10
Fort Moultrie	78.03	82.80	83.58	80.58	81.25	91	74	9.7	7.3	19	54	15	42	17	48
Fort Marion	75.66	87.03	85.87	84.00	83.14	90	72	6.9	11.1	4	5	3	7	28	49
Key West	81.70	84.80	86.60	83.60	84.17	88	81	3.8	3.2	0	0	7	13	94	199
Fort Brooke	79.38	83.32	87.41	82.77	83.22	92	76	8.8	7.2	0	0	4	6	19	25
Mount Vernon Arsenal	72.25	82.61	87.22	74.12	79.05	94	70	14.9	9.1	1	2	2	4	0	0
Camp Twiggs	79.55	90.16	89.05	81.66	85.10	98	76	12.9	9.1	15	18	3	3	4	5
Baton Rouge Barracks	75.20	88.20	91.60	78.29	83.42	96	70	12.6	13.4	2	5	6	12	18	32
Fort Towson	72.21	80.00	87.15	77.28	79.16	95	63	15.8	16.2	9	19	0	0	11	17
Fort Washita	72.58	81.45	89.00	76.48	79.88	102	58	22.1	21.9	7	25	27	105	12	38
Fort Smith	72.41	78.67	90.55	79.83	80.36	96	62	15.6	18.4	0	0	5	6	33	37
Fort Gibson	70.10	79.07	86.02	74.02	77.30	95	58	17.7	19.3	24	56	9	16	8	18
Fort Scott	64.54	79.22	82.45	72.12	74.58	94	50	19.4	24.6	22	34	12	15	20	21
Jefferson Barracks	67.03	73.90	82.41	76.16	74.87	90	50	15.1	24.9	4	6	1	3	4	11
St. Louis Arsenal	63.00	76.42	84.00	71.42	73.71	93	52	19.3	21.7	8	9	3	7	38	50
Detroit Barracks	61.03	72.90	77.13	68.29	69.84	85	50	15.2	19.8	23	46	22	41	27	60
Fort Gratiot	61.48	65.32	70.00	66.70	65.87	76	50	10.1	15.9	29	42	14	19	2	2
Fort Mackinac	56.19	62.90	67.70	59.77	61.64	76	46	14.4	15.6	19	32	12	19	9	15
Fort Ripley	52.70	69.20	75.90	59.34	64.28	93	39	28.7	25.3	4	9	5	18	5	19
Fort Snelling	54.10	69.16	74.09	58.04	63.85	86	48	22.1	15.9	8	21	5	7	9	11
Fort Leavenworth	66.67	74.00	80.12	72.51	73.32	90	48	16.7	25.3	13	23	18	25	8	12
Fort Kearney	60.41	70.06	76.22	69.00	68.92	88	38	19.1	30.9	25	49	5	8	15	24
Fort Croghan	73.67	81.80	91.64	77.64	81.19	101	60	19.8	21.2	0	0	10	25	2	3
San Antonio	77.85	79.12	80.40	80.00	79.34	91	73	11.7	6.3	1	4	20	37	18	29
Fort Martin Scott	68.36	73.50	81.90	75.41	74.79	87	61	12.2	13.8	4	10	6	13	0	0
Fort Polk	77.00	84.90	84.55	78.00	81.11	89	76	7.9	5.1	2	6	0	0	0	0
Fort McIntosh	75.90	82.90	94.88	84.74	84.60	100	73	15.4	11.6	3	8	1	4	0	0
Monterey	50.39	56.45	69.51	55.77	58.03	82	44	24.0	14.0	18	34	13	29	6	10
Sacramento	53.29	72.29	88.00	64.83	69.60	102	50	32.4	19.6	0	0	0	0	0	0
Cantonment Loring	43.35	71.80	82.41	56.03	63.39	92	22	18.6	41.4	12	..	0	..	9	..

MONTH OF AUGUST, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	11	35	91	5	7	3	7	4	11	1.28	2.29	3.54	1.30	2.11	10	21	4	0	0.50?	Weather notation inaccurate.
13	33	18	21	13	31	34	57	13	20	3.29	4.12	5.00	4.12	4.13	17	14	7	0	7.21?	Therm. protected.
6	13	41	73	7	17	11	16	8	14	2.83	4.61	5.16	2.32	3.73	15	16	12	0	4.07	
32	54	0	0	49	67	0	0	8	15	3.12	4.77	4.96	5.80	4.66	15	16	12	0	....	
28	55	33	52	2	3	10	30	6	20	5.61	6.55	6.77	6.32	6.31	21	10	7	0	3.33	
10	22	22	43	40	95	9	24	20	67	9.10	5.20	5.50	6.50	6.57	17	14	7	0	3.01	
15	21	21	46	21	39	15	20	14	28	6.09	5.19	6.00	6.09	5.84	18	13	9	0	4.63	
26	62	38	84	7	13	1	1	18	49	3.16	4.09	4.13	5.55	4.23	12	19	9	0	4.84	
39	81	43	59	5	8	11	20	0	0	4.45	5.16	4.58	6.22	5.10	18	13	8	0	3.60	
10	28	20	38	39	77	17	36	10	20	4.74	4.87	5.77	6.38	5.44	20	11	7	0	4.06	
15	37	0	0	44	86	0	0	45	96	6.58	7.77	8.35	8.00	7.67	23	8	6	0	1.61	
6	12	32	62	8	20	17	49	13	32	5.21	5.29	6.26	6.60	5.84	22	9	11	0	7.21	
4	11	18	18	46	78	6	16	6	9	1.61	5.35	5.16	7.32	4.86	20	11	11	0	3.26	
14	32	19	40	11	19	35	58	4	6	7.90	7.29	8.90	8.27	8.09	22	9	7	0	1.43	
25	53	23	30	8	15	28	55	6	13	4.54	4.77	4.61	6.51	5.60	16	15	8	0	7.36	
44	44	21	39	9	13	5	7	15	28	5.61	5.09	4.03	7.09	5.45	16	15	6	0	2.25	
7	16	22	40	14	26	5	10	11	16	6.29	5.97	6.35	6.32	6.23	20	11	9	0	1.98	
15	26	14	29	17	43	1	1	13	34	5.58	5.41	4.90	6.12	5.50	21	10	5	0	0.69	
12	35	11	37	19	46	25	63	6	18	6.45	6.22	5.87	6.58	6.28	25	6	11	0	10.80	
11	20	5	7	9	16	26	29	1	1	7.80	9.41	7.09	6.48	7.70	24	7	10	0	8.73	
10	29	0	0	0	0	0	0	3	3	6.00	6.10	6.00	5.70	5.95	28	3	9	0	1.46	
49	83	7	15	17	31	23	38	5	10	6.77	6.87	3.25	4.60	5.37	19	12	15	0	6.32	
30	88	1	2	18	50	0	0	72	180	5.54	4.67	4.25	3.29	4.43	13	18	11	0	11.15	
1	1	19	46	6	16	15	26	7	7	4.47	5.21	3.95	3.52	4.29	8	11	9	0	5.94	Last 19 days
36	77	10	13	24	49	14	29	8	24	4.20	6.29	6.14	3.18	4.95	20	11	9	0	5.38	
1	2	31	56	4	7	10	16	1	3	4.15	4.23	3.25	7.29	4.73	15	16	6	0	3.57	
31	110	20	65	22	79	3	11	2	7	5.41	6.09	6.58	7.58	6.41	23	8	4	0	4.00	
12	15	2	3	13	14	52	61	0	0	6.96	7.87	7.90	7.67	7.60	25	6	4	0	1.95	
15	32	7	19	34	73	11	23	18	37	5.05	5.09	6.00	8.03	6.01	23	8	5	0	3.70	
12	18	30	60	21	53	6	10	1	2	3.93	5.03	4.90	6.32	5.04	17	14	7	0	2.62	
16	35	67	154	17	45	11	25	4	10	4.87	5.38	5.83	6.87	5.73	20	11	9	0	4.72	
3	8	26	30	10	12	23	37	7	14	4.50	7.00	4.00	4.00	4.87	21	10	7	0	7.95	
9	27	11	29	1	2	19	42	12	26	5.97	6.71	7.42	4.50	6.15	18	13	9	0	4.35	
1	1	28	29	14	19	17	19	17	29	4.48	4.80	4.54	2.56	4.10	15	16	11	0	4.70	
12	16	12	14	20	37	15	34	25	45	6.03	6.48	5.61	6.12	6.06	18	13	8	0	5.11	
4	13	47	127	18	59	27	94	6	20	6.00	5.60	5.90	7.00	6.12	21	10	9	0	....	
19	19	34	45	18	22	14	18	17	35	3.09	2.67	2.64	3.03	2.85	14	17	7	0	9.60	
32	78	27	44	8	16	5	10	13	25	3.51	3.90	4.87	6.38	4.66	14	17	5	0	5.80	
7	9	52	90	14	37	2	2	4	5	5.19	5.67	5.96	5.90	5.68	18	13	7	0	6.05	
13	28	21	27	44	70	0	0	0	0	6.16	6.87	7.74	8.16	7.23	23	8	3	0	0.40	
46	72	45	89	2	5	0	0	0	0	5.93	7.22	8.17	6.90	7.05	26	5	1	0	0.10	
16	33	63	106	5	15	0	0	0	0	4.05	5.00	5.20	7.71	5.49	20	11	4	0	....	
96	336	25	91	0	0	0	0	1	3	8.59	8.67	8.61	8.36	8.56	30	1	1	0	2.25	
116	348	0	0	0	0	0	0	4	11	6.83	6.93	6.45	7.10	6.83	22	9	6	0	4.70	
6	14	33	63	19	28	14	23	6	8	2.00	3.00	3.10	2.20	2.57	12	19	0	0	0.00	
2	6	51	124	43	134	9	24	12	29	9.50	9.85	9.89	9.81	6.76	31	0	0	0	0.00	
2	..	19	..	23	..	47	..	2	..	....	....	....	....	....	29	2	2	0	....	

MONTH OF SEPTEMBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	52.10	58.53	63.51	56.35	57.62	69	39	11.4	18.6	13	38	3	14	9	26
Fort Preble	61.70	61.80	65.50	64.20	63.20	72	54	8.8	9.2	20	29	1	2	4	8
Fort Constitution	55.33	61.76	67.63	60.40	61.28	74	43	12.7	18.3	38	63	6	10	12	21
Fort Trumbull	56.53	63.53	69.30	61.93	62.82	83	48	20.2	14.8	7	19	26	69	4	11
Fort Adams	59.36	63.86	67.63	63.16	63.50	75	52	11.5	11.5	9	31	1	2	11	23
Fort Hamilton	58.80	63.33	73.46	64.50	65.02	85	51	20.0	14.0	8	24	35	86	13	24
Fort Columbus	58.26	63.80	71.30	63.90	64.31	80	48	15.7	16.3	21	37	18	32	15	31
West Point	55.27	62.03	69.03	61.07	61.85	77	48	15.1	13.9	28	78	8	24	3	5
Watervliet Arsenal	54.53	59.90	67.60	59.93	60.49	78	42	17.5	18.5	..	..	..	..	..	..
Plattsburg Barracks	50.93	58.50	64.80	56.07	57.57	76	37	18.4	20.6	12	17	7	13	6	8
Madison Barracks	54.73	61.96	69.53	59.46	61.42	82	40	20.6	21.4	24	50	7	12	0	0
Fort Ontario	54.60	62.66	67.03	59.73	61.00	82	41	21.0	20.0	0	0	14	40	0	0
Fort Niagara	56.46	62.62	65.32	61.40	61.45	81	42	19.5	19.5	21	90	4	15	19	69
Alleghany Arsenal	49.30	61.93	72.33	57.03	60.15	83	41	22.8	19.2	27	33	10	12	10	10
Carlisle Barracks	51.00	66.80	72.43	60.00	62.56	88	40	25.4	22.6	6	12	11	20	40	69
Fort Mifflin	57.80	65.26	78.66	64.43	66.54	90	50	23.5	16.5	12	26	15	35	23	46
Fort McHenry	59.70	69.50	76.30	66.20	67.92	89	51	21.1	16.9	21	30	19	53	0	0
Fort Monroe	67.56	70.63	75.03	69.60	70.70	85	58	14.3	12.7	10	21	46	115	29	63
Fort Moultrie	72.16	75.83	78.16	75.03	75.29	86	64	10.7	11.3	43	49	21	68	2	11
Key West	80.33	83.90	84.90	82.70	82.96	88	77	5.0	6.0	3	3	22	80	26	73
Fort Brooke	78.13	82.10	85.47	82.13	81.96	90	71	8.0	11.0	0	0	17	33	44	87
Mount Vernon Arsenal	67.40	76.56	82.13	71.90	74.50	92	54	17.5	20.5	2	14	49	109	3	12
Camp Twiggs	74.26	84.32	87.05	78.40	81.01	92	63	11.0	18.0	27	55	27	60	7	20
Baton Rouge	71.00	81.03	87.06	74.70	78.45	96	63	17.5	15.5	0	0	32	64	16	30
Fort Towson	66.60	75.43	82.90	72.10	74.26	92	58	17.7	16.3	10	15	4	9	24	42
Fort Washita	64.56	76.06	83.83	70.96	73.85	98	57	24.1	16.9	3	7	23	76	31	97
Fort Smith	64.30	73.23	85.50	74.26	74.32	94	50	19.7	24.3	2	2	9	11	54	63
Fort Gibson	61.96	76.53	83.30	68.56	72.59	93	51	20.4	21.6	35	66	36	64	5	9
Fort Scott	58.03	70.60	79.33	67.20	68.79	89	42	20.2	26.8	10	15	20	25	6	6
Jefferson Barracks	57.86	68.03	75.93	67.83	67.41	85	45	17.6	22.4	4	9	5	9	26	28
St. Louis Arsenal	56.20	68.53	78.27	63.50	66.62	92	46	25.4	20.6	13	18	4	7	44	48
Newport Barracks	59.20	64.80	75.93	67.16	66.77	86	54	19.2	12.8	17	27	12	15	32	42
Detroit Barracks	54.63	67.00	72.60	61.00	63.81	85	37	21.2	26.8	19	35	15	29	21	41
Fort Gratiot	50.66	59.03	68.30	61.96	60.00	80	34	20.0	26.0	15	23	17	26	6	9
Fort Mackinac	50.03	55.90	60.76	53.93	55.15	75	36	19.8	19.2	17	25	5	9	8	11
Fort Ripley	46.53	59.46	68.70	52.63	56.83	86	34	29.2	24.8	9	22	5	14	2	4
Fort Snelling	55.50	62.76	69.16	58.73	61.54	83	45	21.5	16.5	5	16	7	18	18	28
Fort Leavenworth	60.66	70.90	77.40	68.13	69.27	88	46	18.7	23.3	15	19	4	7	15	17
Fort Kearney	53.77	67.33	77.40	62.43	65.23	88	40	22.8	25.2	26	43	3	3	17	20
Fort Laramie	46.10	64.50	77.06	60.27	61.98	88	34	22.0	28.0	3	3	6	6	20	27
Fort Croghan	69.64	77.64	84.80	74.22	76.57	92	68	15.4	8.6	0	0	0	0	6	14
San Antonio	76.16	77.23	83.73	78.66	78.94	92	72	13.1	6.9	9	21	41	124	15	24
Fort Martin Scott	64.23	69.06	77.01	72.00	70.57	85	55	14.4	15.6	7	12	19	57	6	13
Austin City	70.05	77.07	86.03	76.06	77.30	94	56	16.7	21.3	6	10	25	69	11	43
Fort Polk	77.76	82.90	83.06	80.33	81.01	86	70	5.0	11.0	2	4	16	56	11	33
Fort Brown	72.91	81.26	83.30	78.42	78.97	90	60	11.0	19.0	0	0	5	11	29	60
Ringgold Barracks	74.60	84.77	93.88	81.44	83.67	102	70	18.3	13.7	7	16	1	1	17	30

MONTH OF SEPTEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	11	20	74	9	34	29	51	4	22	3.00	3.30	3.10	3.30	3.18	10	20	5	0	5.24	
6	15	19	41	9	22	29	52	27	42	5.10	4.40	5.19	6.11	5.20	16	14	8	0	2.70	
4	7	38	77	1	1	12	25	5	11	2.86	4.20	4.73	1.96	3.44	11	19	9	0	1.89	
13	24	11	19	26	49	12	32	20	58	5.13	5.76	6.60	7.36	5.96	20	10	8	0	7.01	
8	24	32	84	9	21	32	95	18	79	6.00	6.16	6.60	7.40	6.54	19	11	9	0	2.36	
7	19	3	9	23	66	1	2	30	120	6.70	6.80	6.30	6.90	6.67	19	11	6	0	2.84	
10	21	4	11	9	18	20	45	23	53	7.00	6.83	6.86	7.30	6.99	21	9	5	0	1.55	
16	40	20	50	16	41	8	22	17	53	4.03	5.70	5.40	6.13	5.31	16	14	6	0	0.48	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	15	15	7	0	0.67	
14	35	25	46	18	24	26	43	13	22	4.90	4.93	5.40	6.43	5.42	17	13	4	0	0.70	
1	3	26	69	12	33	26	84	13	36	4.96	5.30	5.56	5.96	5.44	17	13	10	0	6.51	
36	89	0	0	21	49	0	0	49	159	6.90	8.00	8.20	7.36	7.61	25	5	8	0	2.26	
5	11	23	67	11	31	26	75	3	11	5.13	5.19	5.90	6.80	5.76	19	11	8	0	5.00	
6	6	21	35	27	55	6	19	13	32	3.36	6.26	6.50	7.86	5.99	21	9	4	0	1.26	
5	10	4	7	2	6	40	74	12	42	8.11	8.20	8.17	8.26	8.18	23	7	6	0	0.96	
5	7	16	35	13	29	24	62	12	32	4.83	5.73	6.06	6.56	5.79	18	12	4	0	0.48	
21	24	10	13	20	22	7	16	22	54	5.36	5.60	5.80	7.03	5.94	18	12	4	0	1.90	
1	3	10	21	12	24	4	8	8	12	5.73	5.66	5.43	5.80	5.65	12	18	5	0	1.99	
8	19	7	17	7	13	9	20	23	85	4.63	5.76	5.36	6.90	5.66	18	12	9	0	4.70	
12	29	6	19	4	5	15	26	14	35	5.10	5.70	5.90	5.40	5.52	15	15	14	0	3.26	
26	51	2	3	9	19	19	31	3	6	6.40	5.26	4.53	7.23	5.85	22	8	15	0	3.55	
18	57	2	4	7	22	0	0	39	117	5.40	5.40	5.36	5.36	5.38	19	11	3	0	0.65	
5	15	11	29	13	45	4	7	16	31	4.36	5.86	5.10	7.00	5.58	18	12	6	0	2.12	
41	52	4	12	9	19	8	12	4	9	4.13	6.00	6.01	3.17	4.83	22	8	6	0	2.24	
7	19	15	32	1	1	0	0	0	0	3.70	4.90	5.20	2.10	5.23	16	14	5	0	2.54	
31	102	20	60	11	39	0	0	1	3	5.60	5.56	5.93	7.40	6.12	20	10	5	0	3.74	
13	16	3	4	6	7	28	30	0	0	7.16	8.50	7.93	8.16	7.94	24	6	4	0	1.65	
9	14	12	24	7	9	6	11	10	16	5.96	6.90	7.00	8.13	6.99	25	5	2	0	2.05	
12	15	39	71	23	45	6	9	4	4	5.83	5.76	5.33	7.76	6.17	20	10	3	0	0.56	
42	75	2	5	5	17	13	19	23	54	5.86	7.06	5.16	7.73	6.45	22	8	6	0	4.84	
6	11	10	11	10	21	22	33	6	15	5.16	8.00	8.43	4.24	6.46	21	9	5	0	3.96	
3	4	21	31	10	16	19	42	6	15	2.80	5.73	6.33	5.16	5.00	18	12	6	0	2.99	
5	11	14	31	10	14	19	42	17	35	5.40	6.93	7.06	4.50	5.97	22	8	8	0	3.25	
14	20	21	35	15	27	11	11	9	14	4.73	6.80	6.90	2.93	5.34	19	11	7	0	1.12	
10	18	12	20	18	52	15	34	35	65	4.36	4.10	3.20	5.20	4.21	15	15	6	0	1.60	
26	86	17	48	24	90	4	9	21	86	6.20	6.70	6.60	6.60	6.52	20	10	7	0	....	
18	18	27	46	25	38	10	16	10	26	1.96	3.06	3.90	4.43	3.33	15	15	7	0	2.75	
27	70	37	59	7	23	5	7	10	17	3.90	4.10	5.26	5.43	4.67	20	10	6	0	7.56	
5	11	40	89	17	39	11	17	1	1	7.03	6.26	6.70	7.33	6.83	20	10	4	0	0.27	
4	6	3	4	8	13	33	39	3	5	7.40	8.10	7.10	8.80	7.85	24	6	3	0	0.21	
23	68	12	17	77	150	0	0	0	0	5.19	5.29	6.06	5.70	5.56	20	10	7	0	1.20	
36	61	14	17	2	6	0	0	0	0	6.60	7.60	8.10	6.80	7.27	15	15	10	0	6.12	Inaccurate.
80	196	0	0	0	0	0	0	5	11	2.23	2.57	4.00	3.73	3.13	14	16	9	0	....	
36	89	2	6	4	14	0	0	31	73	5.06	4.70	4.10	3.10	4.24	15	15	12	0	....	
58	126	21	42	1	1	1	2	9	37	6.86	7.26	7.25	7.56	7.23	16	14	15	0	4.65	Clearness inaccurate.
34	61	5	10	1	1	12	39	3	9	3.66	3.76	4.30	4.96	4.17	14	16	14	0	8.86?	
23	47	8	12	4	8	2	8	6	22	4.22	4.83	4.72	4.00	4.44	7	11	7	0	4.48	For the last 18 days.

MONTH OF SEPTEMBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort McIntosh	74.70	79.50	89.00	79.83	80.76	99	67	18.2	13.8	0	0	32	83	2	6
Fort Inge	70.23	81.13	87.22	75.22	78.45	96	62	17.5	16.5	..	..	..	..	..	..
Fort Lincoln	71.36	......	86.13	76.60	78.03	92	68	14.0	10.0	..	..	..	..	..	..
Albuquerque	60.97	69.96	75.40	70.03	69.09	81	50	11.9	19.1	0	0	18	45	5	16
Santa Fé	52.23	71.33	72.93	60.93	64.37	91	42	26.6	22.4	7	15	22	37	6	12
San Diego	67.23	70.20	72.43	69.87	69.93	79	60	9.0	10.0	..	..	..	..	..	..
Monterey	51.17	56.90	63.50	57.30	57.22	74	46	16.8	11.2	54	67	9	11	5	5
Sacramento	50.30	67.40	80.80	60.17	64.42	94	45	29.6	19.4	0	0	0	0	0	0
Cantonment Loring	37.77	69.53	78.20	53.03	59.62	86	26	26.4	33.6	22	..	3	..	9	..

MONTH OF SEPTEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
84	204	4	11	0	0	0	0	7	13	4.83	4.16	5.36	5.73	5.02	18	12	11	0	3.74	
..	..	..	..	..	..	..	..	..	..	3.76	4.09	6.13	6.31	5.07	17	13	6	0	....	Incomplete.
..	..	..	..	..	..	..	..	..	..	4.10	....	6.20	5.37	5.22	17	13	10	0	....	Observ'ns at 2 p. m.
8	16	0	0	9	10	0	0	1	2	5.60	7.37	6.60	4.30	6.22	20	10	5	0	....	
16	28	6	8	10	20	23	34	20	41	6.90	7.20	6.50	6.40	6.75	22	8	9	0	5.00?	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	..	..	....	
6	7	4	7	4	8	7	13	14	32	....	....	....	....	....	18	12	0	0	0.00	Inaccurate.
4	10	67	126	29	85	10	16	5	9	9.10	9.60	9.80	10.0	9.62	29	1	0	0	0.00	
1	..	41	..	6	..	31	..	0	..	....	....	....	....	....	25	5	3	0	....	

MONTH OF OCTOBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	44.81	48.90	50.39	47.10	47.80	68	33	20.2	14.8	19	60	9	25	16	50
Fort Preble	50.06	53.54	57.83	52.58	53.50	66	42	12.5	11.5	42	88	6	20	4	14
Fort Constitution	44.77	49.03	53.51	48.35	48.91	64	34	15.1	14.9	40	71	1	2	27	65
Fort Trumbull	47.67	50.90	57.51	52.00	52.02	65	38	13.0	14.0	3	10	49	145	6	25
Fort Adams	50.32	53.22	55.77	52.45	52.94	66	41	13.1	11.9	20	57	33	107	19	33
Fort Hamilton	49.10	51.65	59.50	52.00	53.06	70	38	16.9	15.1	9	30	29	74	11	26
Fort Columbus	49.22	52.48	57.03	51.84	52.64	65	40	12.4	12.6	24	49	26	48	17	31
West Point	45.55	50.68	55.29	50.32	50.46	66	35	15.5	15.5	28	90	10	32	0	0
Watervliet Arsenal	43.42	47.49	52.16	47.23	47.56	62	30	14.4	17.6	14	..	4	..	0	..
Plattsburg Barracks	40.83	45.03	52.38	45.90	46.03	61	29	15.0	17.0	9	15	13	30	2	3
Madison Barracks	44.58	48.96	54.09	48.09	48.93	69	31	20.1	17.9	24	56	9	24	5	8
Fort Ontario	41.58	47.77	48.93	44.80	45.77	65	30	19.2	15.8	0	0	18	56	0	0
Fort Niagara	46.48	50.23	53.35	50.06	50.03	68	33	18.0	17.0	24	94	19	78	19	61
Alleghany Arsenal	44.67	49.80	58.60	47.83	50.22	71	34	20.8	16.2	8	17	19	28	7	9
Carlisle Barracks	44.80	52.17	58.50	49.30	51.19	71	31	19.8	20.2	8	17	10	13	19	32
Fort Mifflin	48.58	56.87	63.09	52.58	55.28	74	40	18.7	13.3	23	45	12	19	13	25
Fort McHenry	52.54	58.87	62.70	54.19	57.07	74	42	16.9	15.1	8	22	16	22	0	0
Fort Monroe	56.64	59.45	65.48	59.16	60.18	83	44	22.8	16.2	10	16	18	36	9	15
Fort Moultrie	63.96	68.41	71.45	67.96	67.94	83	50	15.1	17.9	27	42	19	37	7	10
Key West	77.19	79.45	80.51	78.77	78.98	88	69	9.0	10.0	21	105	24	107	26	100
Fort Brooke	72.06	75.00	79.81	76.45	75.83	90	58	14.2	17.8	8	14	37	77	34	59
Mount Vernon Arsenal	56.84	68.32	71.06	60.64	64.21	84	44	19.8	20.2	0	0	29	67	2	8
Camp Twiggs	62.65	71.64	76.74	68.11	69.78	92	49	22.2	20.8	32	60	25	54	5	12
Baton Rouge Barracks	57.03	68.93	80.83	67.25	68.51	90	48	21.5	20.5	0	0	31	40	41	75
Fort Towson	49.55	58.90	71.00	57.00	59.11	80	39	20.9	20.1	23	47	0	0	17	36
Fort Washita	49.25	63.51	72.22	58.00	60.74	86	40	25.3	20.7	1	4	15	54	30	102
Fort Smith	48.12	55.80	75.41	63.96	60.82	85	38	24.2	22.8	6	7	2	3	29	36
Fort Gibson	43.54	61.67	67.64	52.96	56.45	81	35	24.5	21.5	43	97	20	49	5	18
Fort Scott	41.90	54.16	63.74	50.77	52.64	79	32	26.4	20.6	21	37	8	13	10	19
Jefferson Barracks	46.19	52.94	62.97	50.87	53.24	76	34	22.8	19.2	8	17	5	11	3	7
St. Louis Arsenal	42.52	51.80	62.29	44.58	50.30	72	36	21.7	14.3	23	56	3	4	17	20
Newport Barracks	49.58	53.62	61.74	56.06	55.25	70	38	14.7	17.3	17	34	16	24	6	9
Detroit Barracks	43.71	51.70	56.22	47.22	49.71	70	30	20.3	19.7	26	55	15	32	14	34
Fort Gratiot	38.70	49.03	58.54	48.03	48.58	69	24	20.4	24.6	18	30	26	53	10	15
Fort Mackinac	40.74	43.51	48.00	44.16	44.10	62	32	17.9	12.1	14	19	9	15	9	28
Fort Howard	38.25	45.14	51.50	44.20	44.77	60	26	15.2	18.8	1	2	2	3	8	11
Fort Ripley	35.09	42.77	53.74	40.61	43.05	70	18	26.9	25.1	6	14	12	31	1	2
Fort Snelling	40.19	46.23	56.74	45.77	47.23	74	28	26.8	19.2	12	28	16	25	9	25
Fort Leavenworth	43.94	53.83	61.29	52.32	52.84	78	30	25.2	22.8	5	5	12	20	12	21
Fort Kearney	34.84	47.87	59.09	45.16	46.74	77	18	30.3	28.7	59	116	1	2	0	0
Fort Laramie	32.60	42.10	56.40	42.90	43.50	74	24	30.5	19.5	1	1	9	12	11	15
Fort Croghan	58.77	66.16	74.25	63.09	65.57	86	40	20.4	25.6	4	16	3	12	3	6
Fort Gates	56.03	69.16	78.64	65.16	67.25	88	44	20.7	23.3	11	38	10	13	21	48
San Antonio	69.68	71.20	75.13	71.58	71.90	82	60	10.1	11.9	4	7	22	38	36	51
Fort Martin Scott	53.03	58.16	68.00	61.00	60.05	80	43	19.9	17.1	5	8	11	34	6	7
Fort Polk	71.29	74.41	77.09	74.67	74.36	86	52	11.6	22.4	4	7	23	46	4	7
Fort Brown	66.78	71.63	76.51	69.12	71.01	87	51	16.0	20.0	21	50	19	37	12	21

MONTH OF OCTOBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
10	23	20	63	5	8	2	3	16	48	....	....	....	....	....	9	22	4	0	1.86	Inaccurate.
11	33	9	17	10	28	15	29	18	26	4.77	4.67	4.38	5.03	4.71	14	17	8	0	4.50	Temp. and winds inaccurate.
3	7	23	39	2	5	13	25	13	32	2.19	3.67	4.16	2.09	3.04	12	19	10	0	6.01	
14	38	6	13	19	55	2	4	23	77	4.19	4.16	3.38	4.32	4.01	14	17	13	0	12.43	
8	22	10	12	8	16	21	68	5	15	5.29	4.77	4.45	5.51	5.00	17	14	10	0	7.07	
4	7	7	17	15	46	6	12	43	51	5.30	5.40	4.20	3.60	4.62	18	13	9	0	4.50	
9	29	4	13	14	27	12	32	18	61	4.90	4.87	4.61	3.51	4.47	15	16	9	0	5.63	
12	40	22	46	11	28	5	15	36	119	2.93	3.09	1.87	3.71	2.90	11	20	15	0	7.63	
4	..	36	..	2	..	59	..	9	..	....	....	....	....	....	11	20	10	0	5.34	
26	51	27	45	9	14	14	27	23	32	3.77	3.48	3.35	4.29	3.72	13	18	8	0	4.20	
5	12	34	54	10	29	14	28	14	31	4.09	3.90	3.45	4.77	4.05	14	17	9	0	5.21	
39	93	0	0	32	74	0	0	35	97	6.35	6.32	6.54	6.09	6.32	18	13	11	0	6.30	
5	11	22	50	18	27	11	37	8	29	4.60	4.00	4.10	5.11	4.45	13	18	12	0	4.14	
13	21	9	11	21	30	25	48	22	46	3.54	3.87	4.00	5.77	4.29	15	16	10	0	3.86	
15	22	11	35	3	3	35	78	23	56	6.17	6.18	6.21	7.17	6.43	19	12	11	0	4.63	
6	15	11	22	19	40	28	74	12	31	3.64	4.48	3.58	4.67	4.09	11	20	12	0	6.52	
12	13	11	31	21	34	21	64	36	77	4.06	4.12	2.93	4.09	3.80	11	20	12	0	6.27	
9	16	8	20	5	11	35	57	30	69	4.45	4.13	3.58	5.00	4.29	15	16	11	0	2.91	
7	14	8	17	16	31	23	43	17	30	4.80	4.70	5.06	5.41	4.99	15	16	11	0	3.99	
13	42	14	29	11	21	0	0	4	15	5.19	6.35	6.06	5.29	5.72	13	18	13	0	10.18	
15	31	3	7	12	25	11	21	4	9	5.42	5.42	5.77	6.68	5.82	18	13	6	0	1.74	
13	51	0	0	18	42	0	0	62	159	3.77	5.33	5.06	5.06	4.80	17	14	7	0	13.00	
13	39	7	26	11	40	9	17	19	34	4.00	5.74	5.03	5.84	5.15	17	14	7	0	4.82	
25	33	4	4	10	17	0	0	7	24	3.34	5.16	6.48	2.30	4.32	13	18	5	0	6.00	
5	7	8	11	1	3	11	19	5	12	6.45	5.96	6.48	7.12	6.50	19	12	3	0	3.66	
9	28	11	41	25	91	30	101	3	14	6.22	6.41	6.12	7.29	6.51	23	8	4	0	4.42	
10	16	0	0	21	32	35	39	20	26	7.71	8.45	7.64	7.96	7.94	23	8	4	0	2.00	
21	45	0	0	0	0	0	0	35	97	6.19	6.58	6.41	6.93	6.52	22	9	5	0	4.05	
5	9	15	31	15	30	28	48	22	42	4.67	5.35	5.35	6.80	5.54	19	12	4	0	3.86	
17	43	13	22	11	33	32	80	35	86	4.57	5.19	4.06	5.58	4.85	17	14	6	0	1.85	
2	2	13	17	9	25	38	62	9	24	5.00	7.55	7.65	4.39	6.15	18	13	5	0	2.80	
2	3	28	28	14	17	33	84	8	31	3.90	6.32	7.26	6.74	6.05	20	11	10	0	4.37	
6	10	19	44	2	2	32	72	10	18	5.06	6.30	6.40	4.40	5.54	11	20	15	0	6.00	Clearness inaccurate.
4	7	20	37	22	47	12	20	7	10	3.74	5.12	6.06	3.51	4.61	14	17	11	1	4.20	
12	18	20	41	15	25	16	36	29	48	4.25	3.80	3.51	4.00	3.89	16	15	7	0	1.70	
32	80	6	8	25	66	0	0	29	91	4.27	4.21	5.10	5.21	4.69	16	15	4	1	....	
24	80	9	30	12	32	31	107	18	52	7.51	7.25	7.12	7.61	7.37	21	10	5	1	....	
12	12	22	35	24	34	10	11	19	36	2.19	3.80	3.71	4.48	3.54	15	16	8	0	5.35	
18	36	21	30	12	22	23	49	21	39	3.51	4.64	5.45	5.48	4.77	16	15	8	0	3.44	
2	3	19	34	9	16	23	27	11	21	6.64	6.13	6.42	6.29	6.27	22	9	5	0	1.80	
3	4	0	0	6	7	48	78	13	30	6.60	6.30	7.50	7.00	6.85	23	8	3	4	2.72	
5	7	11	34	42	77	6	14	11	35	6.48	6.54	6.96	7.51	6.87	20	11	3	0	1.30	
27	62	12	32	5	14	12	12	15	34	3.05	3.48	3.05	3.00	3.15	11	20	4	0	4.09	
11	25	40	53	0	0	4	4	1	2	6.40	7.30	8.30	7.60	7.65	18	13	4	0	3.00	Inaccurate. Therm. protected.
43	86	1	2	7	21	0	0	44	73	4.13	4.52	6.00	6.67	5.33	19	12	5	0	....	
50	111	2	4	4	8	0	0	34	108	7.38	7.74	8.00	8.48	7.90	25	6	4	0	2.04	
23	63	5	10	0	0	2	7	8	31	3.00	4.00	4.45	5.12	4.14	16	15	6	0	2.34?	

MONTH OF OCTOBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Ringgold Barracks.....	60.54	76.00	85.67	69.67	72.97	98	42	25.0	31.0	17	38	15	26	52	75
Fort McIntosh........	62.12	70.45	82.54	69.64	71.19	91	43	19.8	28.2	0	0	4	9	1	2
Fort Duncan..........	58.74	68.58	80.54	66.33	68.55	91	38	22.4	30.6	27	57	8	18	37	71
Fort Inge.............	55.77	68.68	79.03	61.34	66.20	88	36	21.8	30.2	..	..	..	..	..	..
Fort Lincoln..........	56.87	......	77.61	63.32	65.93	90	42	24.1	23.9	16	45	1	2	24	31
Albuquerque...........	44.40	57.90	64.90	60.60	56.95	75	22	18.0	35.0	15	18	21	27	5	18
Las Vegas.............	......	......	......	......	......	....	....	......	......	2	5	4	15	1	2
Santa Fé..............	37.84	53.45	58.22	46.16	48.92	66	30	17.1	18.9	4	7	25	27	5	5
San Diego.............	55.90	68.10	71.70	60.90	64.15	85	47	20.8	17.2	..	..	..	..	..	..
Monterey..............	51.19	58.45	70.19	55.83	58.91	88	45	29.1	13.9	38	52	15	25	8	12
Sacramento............	49.60	65.20	80.53	60.52	63.96	88	44	24.0	20.0	4	8	0	0	1	3
Cantonment Loring....	29.48	56.09	61.51	44.80	47.97	72	18	24.0	30.0	19	..	5	..	3	..

MONTH OF OCTOBBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	16	5	12	0	0	0	0	3	8	5.90	5.77	5.93	6.93	6.13	19	12	4	0	3.02	
61	128	0	0	0	0	0	0	54	108	5.30	6.03	6.10	5.74	5.79	18	13	4	0	0.46	
12	18	17	36	0	0	0	0	9	29	5.45	6.25	6.93	7.51	6.53	20	11	4	0	....	
..	..	..	..	..	..	..	..	..	..	6.32	6.46	7.20	6.86	6.71	22	9	3	0	....	
11	30	3	4	4	11	2	6	2	2	6.13	7.58	7.64	7.40	7.19	25	6	3	0	....	
8	16	11	11	1	1	4	4	2	3	7.10	8.50	7.42	6.90	7.48	24	7	7	0	....	
17	17	4	4	20	29	28	32	15	24	8.06	7.93	8.42	8.68	8.27	26	5	5	4	....	
1	4	85	197	5	16	2	8	2	5	5.93	6.83	7.48	6.41	6.66	20	11	3	2	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	23	8	1	0	....	
5	14	11	23	20	42	14	20	7	17	7.52	7.50	7.55	7.80	7.58	15	16	2	0	0.01	
1	1	44	73	8	23	11	13	2	7	9.40	9.45	9.50	9.70	9.51	23	2	3	0	0.20	25 days; 11th to 16th
1	..	49	..	5	..	35	..	1	..	....	....	....	....	....	19	12	5	1	....	[omitted.

MONTH OF NOVEMBER, 1849.

	THERMOMETER.									WINDS.					
STATIONS.	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	40.13	42.72	48.26	43.18	43.54	59	23	15.5	20.5	27	68	11	25	21	60
Fort Preble	45.00	51.36	55.00	51.80	50.79	60	22	9.2	18.8	29	71	8	25	5	10
Fort Constitution	40.70	44.66	50.20	43.26	44.70	60	28	15.3	16.7	46	68	6	16	7	27
Fort Trumbull	44.73	48.60	54.26	48.30	48.97	66	29	17.0	20.0	5	12	23	76	6	16
Fort Adams	47.20	49.57	53.67	51.07	50.38	64	35	13.6	15.4	3	12	8	37	1	1
Fort Hamilton	46.50	48.30	54.90	49.20	49.72	66	32	16.3	17.7	4	11	26	60	10	22
Fort Columbus	44.46	47.80	52.63	47.86	48.19	68	30	19.8	18.2	11	24	16	39	7	12
West Point	43.97	47.80	52.10	46.53	47.60	64	30	16.4	17.6	27	82	7	18	0	0
Watervliet Arsenal	39.26	43.23	46.80	43.26	43.14	60	24	16.9	19.1	21	..	3	..	0	..
Plattsburg Barracks	38.16	41.40	46.63	41.56	41.94	57	26	15.1	15.9	17	27	5	6	20	31
Madison Barracks	43.40	46.76	49.23	44.93	46.08	66	26	19.9	20.1	18	39	9	13	19	23
Fort Ontario	41.23	44.73	48.40	42.66	44.25	68	26	23.7	18.3	0	0	18	52	0	0
Fort Niagara	44.53	47.06	50.16	48.30	47.51	64	33	16.5	14.5	14	47	10	32	19	47
Alleghany Arsenal	39.80	43.13	53.53	42.83	44.82	68	27	23.2	17.8	3	3	18	18	9	9
Carlisle Barracks	40.03	45.66	54.90	44.90	46.37	73	24	26.6	22.4	1	1	2	4	28	43
Fort Mifflin	44.26	51.93	62.53	48.73	51.86	83	28	31.1	23.9	10	25	13	30	8	11
Fort McHenry	47.90	54.13	60.66	51.60	53.57	76	34	22.4	19.6	7	8	7	8	2	2
Fort Monroe	50.50	53.63	61.36	54.26	54.94	72	37	17.1	17.9	17	29	12	33	4	17
Fort Moultrie	56.10	60.83	65.76	60.80	60.87	72	44	11.1	16.9	25	74	8	12	5	7
Fort Shannon, Pilatka	52.23	68.40	70.40	59.20	62.56	78	35	15.4	27.6	0	0	30	73	5	8
Fort Brooke	64.70	69.26	74.00	69.53	69.37	80	53	10.6	16.4	20	38	30	68	40	63
Mount Vernon Arsenal	50.73	58.67	69.46	56.73	58.90	78	40	19.1	18.9	0	0	2	10	5	7
Camp Twiggs	59.17	68.28	72.66	63.86	66.00	79	44	12.0	22.0	38	65	16	27	18	38
Baton Rouge Barracks	54.70	65.33	76.63	60.06	64.18	90	40	25.8	24.2	8	22	7	20	26	50
Fort Towson	50.20	54.50	66.23	55.20	56.53	78	32	21.5	24.5	17	34	1	2	25	49
Fort Washita	49.10	58.86	67.00	55.63	57.65	80	30	22.3	27.7	4	12	9	33	24	78
Fort Smith	46.93	54.30	73.33	61.46	59.00	87	29	28.0	30.0	6	9	6	9	16	25
Fort Gibson	48.66	55.56	61.26	52.96	54.61	75	32	20.4	22.6	14	27	16	36	13	32
Fort Scott	42.56	49.86	59.03	49.10	50.14	75	19	24.9	31.1	5	7	13	21	9	9
Jefferson Barracks	43.90	50.00	58.40	46.53	49.71	71	24	21.3	25.7	16	48	6	18	29	54
St. Louis Arsenal	40.60	49.47	58.00	48.00	49.02	74	28	25.0	21.0	14	14	1	1	8	8
Newport Barracks	43.86	51.53	58.76	50.46	51.15	76	27	24.8	24.2	16	29	11	13	13	16
Detroit Barracks	40.46	48.86	53.86	43.90	46.77	72	27	25.2	19.8	20	36	7	19	15	31
Fort Gratiot	37.13	48.43	51.16	44.30	45.25	70	24	24.7	21.3	10	13	13	23	2	3
Fort Mackinac	38.66	41.33	44.72	41.40	41.53	58	22	16.5	19.5	8	10	9	15	13	26
Fort Howard	36.66	41.76	49.50	40.76	42.17	66	20	23.8	22.2	14	24	10	17	9	9
Fort Ripley	32.06	36.06	46.20	34.73	37.26	63	15	25.7	22.3	9	32	2	5	3	9
Fort Snelling	36.07	40.05	49.07	41.23	41.60	72	20	30.4	21.6	7	14	3	7	8	9
Fort Leavenworth	42.06	51.33	58.60	49.26	50.31	76	26	25.7	24.3	10	18	5	7	11	24
Fort Kearney	30.13	43.56	53.10	36.96	40.94	73	10	32.1	30.9	47	89	1	4	3	11
Fort Laramie	27.60	38.10	47.80	35.60	37.28	66	13	28.7	24.3	5	5	2	2	9	10
Fort Worth	49.90	60.33	69.80	57.83	59.46	86	32	26.5	27.5	5	8	5	6	3	6
Fort Croghan	52.22	59.76	69.51	59.61	60.27	88	30	27.7	30.3	11	53	12	30	4	15
Fort Gates	55.37	66.00	77.08	63.02	65.37	87	38	21.6	27.4	2	4	0	0	2	6
San Antonio	60.06	66.73	70.10	65.46	65.59	81	48	15.4	17.6	9	11	8	12	6	9
Fort Martin Scott	48.16	53.13	64.00	57.36	55.66	76	27	20.3	28.7	16	20	25	42	4	8
Fort Polk	69.43	71.96	75.13	72.43	72.24	82	55	9.8	17.2	4	10	2	7	4	7

MONTH OF NOVEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	4	3	4	7	14	32	60	2	2	....	....	....	....	....	13	17	9	4	2.55	Inaccurate.
10	36	4	6	4	5	34	52	13	18	4.53	4.56	3.66	4.73	4.37	12	18	7	0	5.30	Inaccurate.
6	15	12	18	4	6	22	41	15	26	2.06	3.36	3.73	1.76	2.73	11	19	9	0	3.50	
7	19	4	8	28	62	18	44	23	81	4.50	5.73	5.40	5.33	5.24	14	16	11	0	5.88	
17	27	29	44	13	26	43	104	6	15	4.37	5.04	6.11	4.63	5.03	18	12	6	0	4.52	
7	13	3	5	14	48	17	46	39	103	5.30	5.00	4.90	5.90	5.27	14	16	6	0	1.45	
9	20	1	3	18	35	23	52	35	94	3.36	4.43	4.80	4.46	4.26	15	15	6	0	1.88	
8	17	14	25	18	32	6	13	40	88	2.57	3.37	2.47	5.00	3.35	9	21	9	0	2.31	
2	..	38	..	6	..	40	..	10	..	....	....	....	....	....	15	15	5	0	1.61	
15	19	33	69	15	18	9	10	6	7	3.12	3.10	3.16	4.22	3.40	11	19	5	1	2.30	
9	14	23	50	8	27	9	36	15	56	3.26	3.03	3.36	4.10	3.44	12	18	7	2	4.99	
42	90	0	0	40	121	0	0	20	49	5.83	6.46	7.40	6.23	6.48	18	12	5	2	2.77	
1	1	15	28	4	12	33	85	11	41	2.28	4.19	3.20	3.16	3.21	14	16	12	2	3.65	
8	8	9	10	49	89	12	27	12	23	1.46	2.80	3.86	4.33	3.11	11	19	11	0	3.97	
5	7	2	11	6	11	67	152	9	27	7.29	8.10	8.10	8.13	7.90	20	10	2	0	0.84	
5	14	15	23	15	26	43	90	11	23	3.23	4.33	5.06	5.76	4.59	15	15	7	0	2.25	
21	21	6	12	20	26	18	35	39	51	5.60	4.90	4.83	6.56	5.47	19	11	2	0	1.06	
0	0	3	8	5	13	56	62	23	43	6.03	5.86	6.06	7.33	6.32	20	10	4	0	4.86	
7	8	8	13	21	32	28	44	18	33	6.00	6.53	5.66	7.36	6.38	19	11	4	0	0.71	
3	9	1	4	5	5	9	18	17	38	5.70	6.05	5.23	6.56	5.88	17	14	4	0	4.10	
6	10	4	6	3	5	10	17	7	9	5.70	6.40	5.90	7.00	6.25	20	10	4	0	0.77	
25	60	0	0	34	58	0	0	54	117	7.10	7.00	6.26	7.43	6.94	20	10	6	0	10.54?	
11	29	8	20	3	7	0	0	10	22	5.03	5.25	5.57	8.07	5.98	18	10	6	0	1.83	First 28 days.
16	33	8	18	10	18	12	25	17	28	6.40	6.30	7.00	7.56	6.81	22	8	7	0	5.03	
6	13	34	89	9	0	8	20	3	8	3.33	3.73	3.90	5.00	4.00	10	20	8	0	2.91	
6	22	34	49	16	55	23	72	4	13	4.93	5.30	5.13	6.36	5.43	17	13	7	0	2.50	
8	11	2	4	13	16	47	61	14	19	4.16	6.36	6.10	5.13	5.44	16	14	9	0	3.70	
6	23	17	54	12	36	4	8	39	88	2.76	4.00	4.80	5.83	4.34	13	17	6	0	4.40	
5	12	46	145	14	29	13	25	15	28	4.30	4.80	4.13	5.60	4.70	13	17	4	1	3.78	
18	48	29	75	2	9	18	52	2	9	4.23	4.63	4.70	5.23	4.69	14	16	8	0	2.02	
3	4	23	26	26	47	29	53	7	12	6.00	7.53	8.00	4.55	6.52	16	14	5	0	3.35	Clearness inaccurate
4	5	27	39	26	42	9	20	14	37	5.66	7.80	8.40	8.53	7.59	20	10	4	0	2.28	
0	0	12	24	9	24	51	130	6	13	....	....	....	....	....	14	16	7	3	1.82	
10	13	17	19	20	35	20	37	16	23	4.13	5.66	5.93	4.13	4.96	16	14	6	1	0.96	
18	36	12	23	19	36	16	32	25	42	4.36	4.66	3.20	5.20	4.35	13	17	5	3	1.43	
23	25	2	2	25	54	0	0	5	14	3.86	4.40	4.76	6.26	4.82	15	15	6	2	....	
20	70	26	73	10	32	30	80	5	16	6.50	6.66	7.40	7.66	7.06	15	15	5	3	....	
24	42	27	38	32	51	11	21	8	14	1.50	2.66	3.30	3.50	2.74	14	16	5	5	1.40	
28	79	25	66	6	13	20	54	15	31	3.63	5.13	6.00	6.10	5.21	18	12	4	0	2.80	
8	19	15	21	8	12	28	31	10	10	6.40	5.43	5.50	7.60	6.23	21	9	0	2	0.10	
2	3	0	0	6	9	61	93	8	10	6.00	6.60	6.30	6.80	6.42	19	11	0	2	0.24	
7	11	9	34	35	110	31	58	10	23	4.13	4.80	4.43	5.56	4.73	15	15	6	0	....	
9	26	16	61	47	137	3	11	1	4	7.06	7.51	7.03	6.41	7.00	21	9	3	0	1.40	
4	6	22	50	4	8	7	15	6	16	6.00	6.10	4.06	4.03	5.00	10	9	3	0	3.50	First 18 days.
9	16	25	33	32	57	9	11	20	35	6.76	7.13	7.73	6.96	7.14	17	13	7	0	5.53	Inaccurate.
41	95	1	2	5	11	0	0	21	37	2.13	2.53	4.50	6.07	3.81	11	19	5	0	1.70	
65	184	0	0	16	31	2	4	24	87	7.40	7.63	7.76	8.03	7.70	24	6	4	0	0.22	

MONTH OF NOVEMBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brown	65.22	71.00	73.00	66.66	68.97	82	52	13.0	17.0	12	17	1	1	7	12
Ringgold Barracks	57.66	70.20	82.20	79.33	69.85	90	38	20.1	31.9	12	16	6	21	24	47
Fort McIntosh	54.33	68.03	78.20	63.90	66.11	88	36	21.9	30.1	1	1	3	6	0	0
Fort Duncan	52.46	61.73	75.75	60.91	62.71	86	34	23.3	28.7	29	58	3	5	21	42
Fort Inge	47.20	62.39	74.41	56.90	60.22	90	29	29.8	31.2	..	..	..	..	..	..
Socorro	32.82	41.20	50.44	40.70	41.29	70	21	28.7	20.3	17	32	5	6	0	0
Albuquerque	34.90	51.40	56.30	50.70	48.32	67	18	18.7	30.3	14	19	4	7	6	8
Las Vegas	......	......	......	......	......	....	....	......	......	6	11	7	28	3	9
Santa Fé	32.20	42.67	47.97	35.53	39.59	61	7	21.4	32.6	7	7	7	8	4	6
San Diego	51.30	58.20	62.80	53.30	56.40	68	38	11.6	18.4	..	..	..	..	..	..
Monterey	48.10	55.10	64.23	53.37	55.20	73	37	17.8	18.2	54	104	9	19	4	8
Benicia	44.10	46.10	48.20	46.20	46.15	64	32	17.8	14.2	8	33	33	110	17	47
Camp Far West	46.50	51.73	58.00	50.25	52.25	69	34	16.8	18.2	30	72	3	8	0	0
Fort Steilacoom	46.05	48.06	48.11	45.04	46.81	60	27	13.2	19.8	6	6	9	13	2	2
Cantonment Loring	27.27	35.33	41.60	34.50	34.67	62	—10	27.3	44.7	14	..	4	..	7	..

MONTH OF NOVEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
51	137	6	19	5	16	5	18	9	18	2.90	2.66	3.33	4.57	3.37	16	14	5	0	3.05	
23	42	12	35	9	17	6	11	0	0	5.40	7.20	7.80	7.90	7.07	22	8	2	0	0.32	
44	106	3	5	0	0	0	0	28	71	4.50	5.33	6.40	7.10	6.83	20	10	3	0	0.83	
19	39	14	22	3	6	7	18	12	31	4.83	5.50	7.30	8.10	6.43	21	9	3	0	1.20	
..	..	..	..	..	..	..	..	..	..	4.56	5.51	6.82	7.13	6.00	20	10	5	0	2.05	
0	0	6	14	3	4	1	3	13	18	5.50	5.60	5.40	6.50	5.75	11	6	4	1	1.76	Last 17 days.
6	14	9	10	1	1	7	10	9	17	5.33	6.60	6.47	6.67	6.27	21	9	2	1	....	Inaccurate.
4	14	43	108	11	32	0	0	3	8	7.90	7.00	7.00	7.87	7.44	21	9	1	3	....	
11	15	5	8	25	28	29	32	23	38	7.63	7.78	8.13	8.33	7.97	17	13	2	6	3.00?	Inaccurate.
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	19	11	7	0	....	
4	12	22	47	11	27	0	0	9	15	....	....	....	....	....	12	18	7	0	0.61	
22	61	4	17	13	44	9	42	12	31	4.00	4.70	4.50	4.10	4.33	12	18	20	0	4.46	
16	41	59	169	5	17	3	12	1	2	3.90	3.93	4.10	3.46	3.85	12	18	17	0	6.41	
4	6	12	30	9	15	59	113	10	22	1.04	2.10	2.25	2.05	1.86	4	26	24	0	9.42	
8	..	74	..	3	..	7	..	3	..	....	....	....	....	....	10	20	4	6	....	

MONTH OF DECEMBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	21.16	28.83	25.71	22.64	23.28	47	—4	23.7	27.3	19	57	8	16	0	0
Fort Preble	24.38	25.38	28.90	26.00	26.14	45	—2	18.9	28.1	50	112	0	0	1	2
Fort Constitution	23.70	26.00	29.51	25.90	26.28	45	—4	18.7	30.3	37	78	3	8	5	14
Fort Trumbull	30.29	32.25	36.35	33.83	33.18	50	9	16.8	24.2	17	57	14	49	8	32
Fort Adams	32.00	33.29	37.10	35.84	34.56	53	10	18.4	24.6	3	12	6	9	0	0
Fort Hamilton	32.03	32.67	37.38	33.48	33.89	51	8	17.1	25.9	10	30	25	69	2	4
Fort Columbus	29.35	31.80	35.42	31.71	32.07	39	3	6.9	29.1	9	22	19	51	8	16
West Point	29.29	31.32	34.00	31.19	31.45	45	6	13.5	25.5	35	113	7	21	0	0
Watervliet Arsenal	23.10	25.68	28.35	25.03	25.54	44	2	18.5	23.5	9	..	0	..	0	..
Plattsburg Barracks	20.25	22.35	24.71	21.09	22.10	40	—7	17.9	29.1	24	45	12	15	3	4
Madison Barracks	23.09	24.48	27.70	25.16	25.11	44	—3	18.9	28.1	5	14	17	37	17	26
Fort Ontario	24.96	26.64	29.48	26.51	26.90	42	3	15.1	23.9	0	0	12	34	0	0
Fort Niagara	28.00	29.35	31.26	29.16	29.44	43	7	13.6	22.4	11	48	5	20	11	33
Alleghany Arsenal	28.22	30.22	33.08	29.38	30.22	56	8	25.8	22.2	15	15	8	9	17	22
Carlisle Barracks	27.19	29.29	33.66	29.09	29.81	47	7	17.2	22.8	4	9	4	6	32	60
Fort Mifflin	30.22	34.51	39.12	31.19	33.76	57	9	23.2	24.8	14	37	9	23	7	12
Fort McHenry	34.71	37.38	41.03	35.29	37.10	55	16	17.9	21.1	9	27	25	27	0	0
Fort Monroe	40.77	42.74	46.96	42.93	43.35	60	20	16.6	23.4	20	26	25	47	7	14
Fort Moultrie	50.96	53.93	58.64	53.42	54.24	69	38	14.8	16.2	27	77	14	40	0	0
Fort Shannon, (Pilatka)	55.35	65.35	70.71	59.09	62.62	82	39	19.4	23.6	2	2	12	36	0	0
Fort Brooke	67.00	69.48	73.58	70.13	70.05	80	54	9.9	16.1	6	10	21	42	33	51
Mount Vernon Arsenal	48.31	53.29	62.87	52.42	54.22	74	26	19.8	28.2	5	5	10	14	3	7
Baton Rouge Barracks	55.22	61.41	69.67	59.35	61.41	82	31	20.6	30.4	24	35	16	18	20	24
Fort Towson	37.83	39.67	48.67	41.80	42.00	70	14	28.0	28.0	32	93	2	4	27	62
Fort Washita	35.29	40.45	49.51	40.70	41.49	78	10	36.5	31.5	21	69	25	90	23	68
Fort Smith	33.45	38.35	51.00	40.80	40.90	75	3	34.1	37.9	24	44	8	12	21	28
Fort Gibson	31.67	36.12	43.12	35.87	36.69	68	—1	31.3	37.7	36	106	30	69	6	17
Fort Scott	24.61	28.74	34.83	29.35	29.38	56	5	26.6	24.4	38	90	6	9	15	22
Jefferson Barracks	25.23	29.13	34.68	28.48	29.38	63	6	33.6	23.4	26	78	14	40	21	59
St. Louis Arsenal	24.96	28.51	34.00	28.39	28.96	58	0	29.0	29.0	30	57	6	16	12	18
Newport Barracks	30.06	32.58	34.64	31.29	32.14	60	2	27.9	30.1	38	111	9	15	12	17
Detroit Barracks	22.96	28.29	30.80	25.74	26.95	43	0	16.0	27.0	15	30	5	7	16	37
Fort Gratiot	21.29	26.00	29.90	25.12	25.58	42	—6	16.4	31.6	24	40	26	34	4	4
Fort Mackinac	19.35	19.83	21.83	19.67	20.17	33	—14	12.8	34.2	18	28	3	7	4	7
Fort Howard	11.80	14.45	20.38	15.20	15.46	36	—23	20.5	38.5	11	16	35	56	7	7
Fort Ripley	—0.51	3.32	11.71	4.22	4.94	35	—32	30.1	36.9	8	14	2	5	12	30
Fort Snelling	5.32	7.74	13.99	8.00	8.76	32	—22	23.2	30.8	12	17	4	5	11	21
Fort Leavenworth	21.29	25.64	32.90	26.90	26.68	52	—4	25.3	30.7	22	43	9	15	18	38
Fort Kearney	10.87	18.77	24.96	16.96	17.89	50	—14	32.1	31.9	39	72	5	9	3	4
Fort Laramie	18.71	22.19	31.64	23.16	23.92	59	—10	35.1	33.9	8	9	16	21	12	12
Fort Worth	38.03	43.61	52.09	43.22	44.24	77	21	32.8	23.2	15	43	14	48	6	10
Fort Croghan	40.51	44.90	53.31	39.51	44.56	80	19	35.4	25.6	9	33	12	47	2	3
Fort Gates	43.48	48.70	59.48	46.67	49.58	83	20	33.4	29.6	23	90	5	8	0	0
San Antonio	49.41	53.00	61.38	50.87	53.66	81	25	27.3	28.7	7	31	32	96	4	9
Fort Polk	59.61	62.12	64.45	62.67	62.21	78	34	15.8	28.2	6	17	4	11	2	5
Fort Brown	57.50	64.27	67.30	59.81	62.22	85	34	22.8	28.2	28	80	0	0	8	13
Ringgold Barracks	54.64	61.29	67.54	60.90	61.09	88	32	26.9	29.1	25	58	11	13	32	39

MONTH OF DECEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	7	7	17	17	36	40	126	22	79	1.30	1.58	2.77	2.19	1.96	7	24	5	10	2.47?	
0	0	2	9	2	5	31	62	33	61	5.09	4.74	4.41	5.29	4.86	14	17	2	11	3.95	
5	8	10	22	11	20	14	29	36	83	1.16	2.32	2.41	2.09	1.99	8	23	3	9	3.36	Weather inaccurate.
1	3	2	4	17	35	17	58	44	171	4.16	4.54	3.87	4.90	4.37	13	18	7	6	9.50	
2	12	7	18	11	20	58	58	37	56	4.84	5.22	5.48	5.32	5.21	18	13	9	3	3.85	
0	0	4	9	17	42	18	61	48	94	4.30	4.40	2.60	5.20	4.12	12	19	6	3	2.43	
2	8	5	8	4	10	23	63	54	161	3.51	4.26	3.48	4.00	3.81	12	19	7	4	4.01	
6	10	23	31	18	36	7	19	38	100	2.71	2.84	2.45	3.39	2.84	8	23	5	11	4.11	
0	..	34	..	10	..	55	..	19	..	....	....	....	....	....	13	18	4	4	2.98	
4	6	9	18	16	28	21	27	24	38	2.18	2.30	1.50	3.90	2.47	10	21	2	5	1.20	
7	10	14	37	4	12	39	120	12	45	1.90	1.70	1.83	2.51	2.00	4	27	3	12	4.85	
34	79	0	0	25	89	0	0	53	219	5.00	5.93	5.41	4.61	5.23	15	16	3	5	2.09	
5	11	6	11	13	33	37	121	20	80	1.17	2.90	2.60	1.29	2.00	8	23	7	10	2.91	
9	9	6	8	27	55	28	82	14	35	1.64	1.61	1.38	1.77	1.60	10	21	4	13	4.11	
7	13	2	5	5	8	39	94	31	98	5.10	4.25	5.80	5.28	5.10	15	16	3	8	3.83	
3	6	5	9	25	43	47	123	14	34	3.54	3.80	3.45	4.00	3.69	11	20	5	4	6.18	
0	0	8	10	12	21	32	57	38	88	2.64	2.38	2.90	4.25	3.04	9	22	5	7	4.44	
6	20	3	5	16	36	18	36	29	60	2.74	2.78	4.29	3.08	3.22	9	22	13	1	4.12	
4	15	12	35	25	52	25	53	17	43	3.83	3.77	5.58	5.74	4.73	15	16	10	0	1.08	
5	10	1	1	21	54	5	6	3	11	4.16	4.06	4.67	4.22	4.28	15	16	9	0	5.70	
10	15	15	22	15	21	17	33	7	14	4.29	4.87	5.96	6.96	5.52	17	14	7	0	1.13	
9	23	3	3	33	79	3	5	58	164	4.48	4.22	4.77	5.00	4.61	13	18	7	0	4.22	
18	30	15	26	6	10	7	8	14	15	3.70	3.58	3.74	3.35	3.59	12	19	5	0	2.50	
3	8	10	14	2	4	4	9	11	41	1.61	2.16	3.09	3.58	2.56	10	21	11	2	6.17	
8	22	5	15	12	37	17	58	13	50	3.16	3.61	4.38	4.56	3.92	12	19	9	2	2.67	
4	5	0	0	9	10	46	49	6	10	3.29	4.24	5.19	5.38	4.52	15	16	10	3	5.94	
4	13	5	13	10	21	2	2	31	85	2.93	3.77	3.58	5.25	3.88	14	17	5	2	2.90	
8	12	23	58	16	29	7	8	11	19	3.12	4.35	3.67	3.96	3.77	13	18	4	2	1.03	
2	4	48	94	8	19	1	4	4	9	3.23	3.65	3.45	4.25	3.64	11	20	4	2	1.52	
5	11	23	29	3	5	23	47	16	44	6.00	7.00	6.50	4.00	5.87	14	17	2	5	1.90	Weather inaccurate.
4	8	7	13	12	17	34	76	8	19	6.16	6.90	7.32	6.77	6.78	17	14	8	5	9.07	
8	17	10	26	6	14	43	122	21	46	....	....	....	....	....	10	21	4	10	0.90	
4	5	12	13	17	29	15	19	17	22	3.29	4.45	4.67	4.16	4.14	13	18	3	9	1.66	
19	41	10	14	15	19	23	56	32	60	2.06	2.80	2.70	2.29	2.46	7	24	0	7	0.51	
12	14	0	0	1	1	19	20	5	8	4.67	4.77	4.90	4.19	4.63	15	16	3	9	....	
23	79	6	12	8	24	32	98	26	85	6.61	6.29	5.80	6.29	6.25	14	17	0	10	0.67	
28	43	12	18	22	30	16	43	19	32	1.32	2.29	2.48	3.29	2.34	7	24	0	11	1.95	
17	35	25	45	4	7	19	46	10	29	2.48	3.70	4.80	4.70	3.92	12	19	0	6	0.56	
16	37	9	19	16	30	20	28	16	42	4.84	4.45	5.03	5.71	5.00	18	13	0	1	0.10	
0	0	0	0	0	0	61	150	12	23	4.70	5.20	5.00	6.50	5.35	16	15	0	6	0.38	
8	24	2	12	30	91	13	31	28	124	2.19	2.90	4.29	4.96	3.58	14	17	5	3	1.90?	
18	39	13	33	29	55	3	3	25	71	5.00	5.38	5.48	6.20	5.42	18	13	4	2	0.90	
2	3	19	28	27	57	5	8	19	58	3.12	3.16	5.19	5.83	4.35	13	18	6	1	....	
15	35	11	17	24	43	4	7	17	39	7.90	7.48	7.45	6.78	7.40	17	14	6	1	1.22	
57	196	2	4	1	2	0	0	51	247	5.03	4.71	4.51	4.58	4.71	16	15	8	1	1.34	
39	100	9	19	1	2	0	0	10	20	1.33	1.72	2.60	3.60	2.31	13	18	7	0	0.74	
29	40	13	17	0	0	0	0	2	3	2.67	3.67	5.65	6.00	4.50	17	14	4	0	0.91	

MONTH OF DECEMBER, 1849.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort McIntosh	49.22	58.64	64.93	53.83	56.65	82	32	25.3	24.7	11	21	3	7	2	3
Fort Duncan	47.03	52.79	63.61	52.14	53.89	79	31	25.1	22.9	7	15	16	33	36	69
Fort Inge	44.39	53.00	63.21	50.66	52.81	80	23	27.2	29.8	..	..	..	..	..	..
Fort Lincoln	48.30	55.00	58.20	53.20	53.67	77	30	23.3	23.7	46	60	5	6	13	14
Socorro	28.29	36.61	46.46	36.24	36.90	63	6	26.1	30.9	37	39	28	30	1	1
Albuquerque	26.90	38.60	44.10	43.30	38.22	53	5	14.8	33.2	27	54	24	42	11	32
Las Vegas	......	......	......	......	......	....	....	......	......	1	2	16	30	5	9
Cebolletta	24.64	35.45	46 29	35.36	35.43	65	10	29.6	25.4	0	0	0	0	2	3
Santa Fé	23.93	36.25	44.87	28.80	33.46	68	— 6	34.5	39.5	4	7	9	9	10	10
San Diego	45.54	52.16	57.48	49.00	51.04	68	34	17.0	17.0	..	..	..	..	..	..
Monterey	43.51	50.06	60.61	48.32	50.87	72	32	21.1	18.9	46	84	20	32	0	0
Benicia	44.78	47.70	51.30	48.00	47.95	64	32	16.0	16.0	11	19	24	44	16	36
Camp Far West	40.64	46.58	50.96	44.25	45.80	64	28	18.2	17.8	28	53	2	3	1	2
Fort Vancouver	33.12	34.79	37.59	32.90	34.60	58	18	23.4	16.6	7	20	15	44	55	132
Oregon City	32.45	35.39	38.74	35.11	35.42	56	21	20.6	14.4	24	24	64	66	0	0
Fort Steilacoom	33.03	36.02	39.10	37.00	36.29	56	22	19.7	14.3	1	3	30	39	36	36
Cantonment Loring	18.32	21.83	27.41	22.45	22.50	52	—16	29.5	38.5	58	65	2	2	4	5

MONTH OF DECEMBER, 1849.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
24	48	10	22	0	0	0	0	45	105	1.22	2.13	2.96	3.67	2.50	11	20	5	0	0.35	
19	47	1	2	4	9	4	5	24	79	2.10	3.06	4.41	5.64	3.52	14	17	5	0	0.42	
..	..	..	..	..	..	..	..	..	..	2.93	2.64	4.34	4.87	3.45	11	20	12	1	2.30	
10	11	24	24	4	7	2	3	3	3	1.61	3.10	2.00	3.10	2.45	10	21	..	..	....	Inaccurate.
10	20	2	6	16	21	2	2	10	14	6.00	5.50	6.00	6.00	5.87	18	13	1	6	0.80	
9	16	20	43	0	0	5	17	7	15	5.54	6.32	6.45	6.46	6.19	20	11	2	4	....	
1	1	4	38	42	111	53	190	1	2	4.70	4.80	4.70	4.50	4.67	14	17	0	5	1.20?	12 inches snow.
0	0	0	0	4	4	8	12	11	19	6.66	7.29	7.66	7.25	7.22	16	6	1	3	0.04	Last 24 days.
5	5	10	10	20	22	43	45	22	37	7.68	7.80	8.10	8.00	8.14	19	12	2	4	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	17	14	3	0	....	
0	18	26	81	11	25	5	12	6	11	....	....	....	....	....	14	17	11	0	3.45	Inaccurate.
16	43	4	11	8	21	4	11	5	8	3.34	3.80	3.34	3.30	3.45	7	16	..	..	....	Last 23 days.
0	0	63	176	9	23	19	30	1	4	8.64	8.83	8.77	9.09	8.83	13	18	11	0	5.20	Clearness inaccurate.
19	43	15	32	3	6	2	3	3	7	1.93	3.09	2.58	1.90	2.38	7	24	8	7	6.00	
0	0	31	32	0	0	0	0	4	4	....	....	....	....	....	10	21	10	6	9.09	
16	19	6	6	21	40	11	27	0	0	1.10	2.00	2.20	3.12	2.11	7	24	12	8	8.25	
0	0	57	126	0	0	3	12	0	0	2.07	1.53	3.00	3.60	2.55	5	26	4	9	....	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Sullivan	44 54	66 58	30	......	......	......	......	......	......	61.38	62.36	57.62
Fort Preble..........	43 39	70 20	50	......	......	......	......	......	68.92	69.69	69.52	63.20
Fort Constitution	43 04	70 49	40	......	......	......	......	......	......	68.74	68.78	61.28
Fort Adams..........	41 30	71 19	37	26.01	24.82	38.15	44.90	53.19	67.04	71.49	71.84	63.50
Fort Trumbull......	41 22	72 05	23	......	......	......	......	52.32	66.04	71.47	71.14	62.82
Fort Hamilton	40 37	74 02	25	26.74	25.85	38.33	46.10	54.13	69.01	71.57	72.57	65.02
Fort Columbus.......	40 42	74 01	23	25.78	24.68	37.84	47.55	55.00	69.50	72.80	72.33	64.31
West Point..........	41 23	74 00	167	23.98	21.85	37.34	46.22	55.35	67.47	71.90	69.63	61.85
Watervliet Arsenal ..	42 43	73 43	50	19.81	16.48	36.14	42.36	54.28	68.12	73.58	69.14	60.49
Plattsburg Barracks..	44 41	73 30	186	......	......	......	......	......	......	70.00	68.48	57.57
Madison Barracks....	43 57	76 15	262	......	......	32.66	41.91	53.46	67.12	72.04	71.09	61.42
Fort Ontario	43 20	76 40	250	20.29	19.45	34.04	41.98	51.20	66.01	73.50	70.97	61.00
Fort Niagara........	43 18	79 08	250	......	......	......	......	......	......	69.84	68.27	61.45
Alleghany Arsenal...	40 32	80 12	704	28.28	28.08	41.05	47.84	60.35	70.93	71.50	69.79	60.15
Carlisle Barracks	40 12	77 14	?	24.93	24.92	40.60	48.90	58.01	71.92	73.18	72.32	62.56
Fort Mifflin	39 51	75 15	40	29.67	28.38	42.24	49.90	57.74	72.56	73.35	73.86	66.54
Fort McHenry	39 18	76 33	36	31.89	30.94	44.44	52.05	61.19	75.17	76.17	75.47	67.92
Fort Monroe	37 00	76 15	8	37.50	36.56	46.40	54.30	61.65	75.56	75.45	76.01	70.70
Fort Macon	34 40	76 45	20	41.25	42.38	51.48	58.39	66.57	76.72	78.53	81.71	......
Fort Moultrie	32 42	79 56	25	49.47	49.00	58.69	64.73	72.65	81.31	78.89	81.25	75.29
Fort Marion.........	29 80	81 30	12	......	......	......	......	......	79.14	80.20	83.14	......
Ft. Shannon,(Pilatka)	29 34	81 48	40	......	......	......	......	......	......	......	......	......
Key West...........	24 32	81 48	10	......	......	......	......	......	......	......	84.17	82.96
Fort Brooke.........	28 00	82 28	18	63.61	61.39	71.60	72.41	79.22	80.71	81.70	83.22	81.96
Fort Barrancas	30 18	87 27	20	58.20	53.09	66.62	68.02	74.56	79.96	79.36	......	......
Mt. Vernon Arsenal..	31 12	88 20	200	53.00	49.86	65.14	64.75	72.50	76.90	76.27	79.05	74.50
East Pascagoula	30 20	88 42	10	......	......	......	......	......	......	......	85.10	81.01
New Orleans Barracks	29 57	90 00	20	60.89	56.08	70.17	71.00	76.82	81.08	81.10	......	......
Fort Pike	30 10	89 38	20	60.86	52.79	69.40	70.00	75.92	82.27	82.13	......	......
Baton Rouge Barracks	30 26	91 18	41	58.16	54.30	67.81	67.63	......	......	79.77	83.42	78.45
Fort Towson........	34 00	95 33	150	......	......	......	......	......	76.11	78.18	79.16	74.26
Fort Washita.......	34 09	96 27	645	36.96	44.90	58.66	61.85	69.33	76.04	77.83	79.88	73.85
Fort Smith..........	35 23	94 29	460	35.78	40.91	57.65	59.46	64.43	76.80	79.86	80.36	74.32
Fort Gibson.........	35 47	95 10	842	33.19	39.65	55.84	60.46	68.87	75.77	77.79	77.30	72.59
Fort Scott...........	37 45	94 35	1,000?	22.91	30.10	49.03	53.17	63.47	73.60	75.12	74.58	68.79
Jefferson Barracks....	38 28	90 15	472	28.06	31.18	49.46	55.28	65.15	73.53	75.19	74.87	67.41
St. Louis Arsenal....	38 40	90 05	450	25.12	28.44	46.40	53.36	63.96	76.69	75.04	73.71	66.62
Newport Barracks ...	39 05	84 22	500	33.08	31.08	49.00	54.50	65.20	76.34	75.19	73.50	66.77
Detroit Barracks.....	42 20	82 58	580	24.69	26.03	39.16	45.69	56.11	69.85	72.60	69.84	63.81
Fort Gratiot	42 55	82 23	598	......	......	......	......	......	......	70.33	65.87	60.00
Fort Mackinac	45 51	84 38	728	13.98	12.36	28.10	33.30	46.06	58.90	66.93	61.64	50.15
Fort Howard........	44 30	88 05	620	......	......	......	......	......	......	......	......	......
Fort Ripley.........	46 10	94 19	1,130	......	......	......	......	......	......	67.68	64.28	56.83
Fort Snelling	44 53	93 10	820	5.42	12.93	30.26	39.69	54.77	68.22	71.63	63.85	61.54
Fort Leavenworth ...	39 21	94 44	896	18.25	24.78	45.65	53.00	63.45	73.32	74.57	73.32	69.27
Fort Kearney	40 38	98 57	2,360	7.10	15.77	35.80	46.92	58.24	67.95	70.95	68.92	65.23
Fort Laramie........	42 12	104 47	4,519	......	......	......	......	......	......	......	......	61.98
Fort Worth.........	32 40	97 25	1,100?	......	......	......	......	......	......	......	......	......

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1849.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
47.80	43.54	23.28	......	......	49.65	......	......	82	— 4	....	....	Maine.
53.50	50.79	26.14	......	69.24	55.89	......	......	89	— 2	....	....	Maine.
48.91	44.70	26.28	......	......	51.63	......	......	85	— 4	....	....	New Hampshire.
52.94	50.38	34.56	45.41	70.12	55.61	28.46	49.90	91	2	41.1	47.9	Rhode Island.
52.02	48.97	33.18	......	69.55	54.60	......	......	92	9	....	....	Connecticut.
53.06	49.72	33.89	46.19	71.05	55.93	26.62	49.95	98	0	48.0	50.0	New York Harbor.
52.64	48.19	32.07	46.80	71.54	55.05	27.51	50.22	94	— 1	43.8	51.2	New York Harbor.
50.46	47.60	31.45	46.30	69.67	53.30	25.76	48.76	94	— 4	45.3	52.7	New York.
47.56	43.14	25.54	44.26	70.28	50.40	20.61	46.39	92	—16	45.6	62.4	New York.
46.03	41.94	22.10	......	......	48.51	......	......	96	— 7	....	....	New York.
48.93	46.08	25.11	42.68	70.08	52.14	......	......	90	— 3	....	....	New York.
45.77	44.25	26.90	42.41	70.16	50.34	22.21	46.28	96	— 5	49.7	51.3	New York.
50.03	47.51	29.44	......	......	52.99	......	......	90	7	....	....	New York.
50.22	44.82	30.22	46.41	70.74	51.73	28.86	49.43	93	— 4	43.6	53.4	Pennsylvania.
51.19	46.37	29.81	49.17	72.47	53.37	26.55	50.39	95	— 9	44.6	59.4	Pennsylvania.
55.28	51.86	33.76	49.95	73.26	57.89	30.60	52.92	99	4	46.1	48.9	Pennsylvania.
57.07	53.57	37.10	52.56	75.60	59.52	33.31	55.25	100	6	44.7	49.3	Maryland.
60.18	54.94	43.35	54.12	75.67	61.94	39.14	57.72	96	12	38.3	45.7	Virginia.
......	......	......	58.81	79.02	......	......	......	93	20	....	....	North Carolina.
67.94	60.87	54.24	65.36	80.48	68.03	50.90	66.19	92	26	25.8	40.2	South Carolina.
......	......	......	......	80.82	......	......	......	90	....	....	....	St. Augustine, Florida.
......	62.56	62.62	......	......	......	......	......	....	....	....	....	Pilatka, East Florida.
78.98	......	......	......	......	......	......	......	....	....	....	....	Florida.
75.83	69.37	70.05	74.41	81.88	75.75	65.02	74.24	92	30	17.8	44.2	Florida.
......	......	......	69.97	......	......	......	......	87	30	....	....	Pensacola, Florida.
64.21	58.90	54.22	67.46	77.41	65.87	52.36	65.77	95	18	29.2	47.8	Alabama.
69.78	66.00	......	......	......	72.26	......	......	....	....	....	....	Mississippi.
......	......	......	72.63	......	......	......	......	92	35	....	....	Louisiana.
......	......	......	71.77	......	......	......	......	94	23	....	....	Louisiana.
68.51	64.18	61.41	......	......	70.38	57.96	......	94	24	....	....	Louisiana.
59.11	56.53	42.00	......	77.82	63.30	......	......	92	14	....	....	Indian Territory.
60.74	57.65	41.49	63.28	78.92	64.08	41.12	61.85	96	14	34.2	47.8	Indian Territory.
60.82	59.60	40.90	60.51	79.01	64.71	39.20	60.86	95	0	34.1	60.9	Arkansas.
56.45	54.61	36.69	61.72	76.95	61.22	36.51	59.10	92	— 2	32.9	61.1	Indian Territory.
52.64	50.14	29.38	55.22	74.43	57.19	27.46	53.07	92	— 3	38.9	56.1	Kansas, (Western Missouri
52.24	49.71	29.38	56.63	74.53	56.79	29.54	54.37	91	0	37.6	54.4	Missouri.
50.30	49.02	28.96	54.57	45.14	65.31	27.51	55.63	96	— 4	40.4	59.6	Missouri.
55.25	51.15	32.14	56.23	75.01	67.72	32.10	57.76	93	6	35.2	51.8	Kentucky.
49.71	46.77	26.95	46.96	70.76	53.43	25.89	49.26	93	—11	43.7	60.3	Michigan.
48.58	45.25	25.58	......	......	51.24	......	......	90	— 6	....	....	Michigan.
44.10	41.53	20.17	35.82	62.49	45.26	15.50	39.77	88	—23	48.2	62.8	Michigan.
44.77	42.17	15.46	......	......	......	......	......	....	—23	....	....	Green Bay, Wisconsin.
43.05	37.26	4.94	......	......	45.71	......	......	95	—32	....	....	Upper Miss. River, Minn
47.23	41.60	8.76	41.91	67.90	50.12	9.04	42.27	93	—30	50.7	72.3	Minnesota.
52.84	50.31	26.68	54.03	73.74	57.47	23.24	52.12	90	—25	37.9	77.1	Kansas.
46.74	40.94	17.89	46.99	69.27	50.97	13.59	45.20	92	—22	46.8	67.2	Platte River, Nebraska.
43.50	37.28	23.92	......	......	47.59	......	......	....	—10	....	....	Upper Platte River, Nebra'a.
......	59.46	44.24	......	......	......	......	......	....	21	....	....	West F'k Trinity riv., Texas

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Croghan	30 40	98 21	1,100?	......	......	......	......	......	78.75	80.90	81.19	76.57
Fort Gates	31 56	97 26	1,200?	......	......	......	......	......	......	......	......	......
San Antonio	29 25	98 25	800?	......	......	......	......	......	......	80.48	79.34	78.94
Fort Martin Scott	30 10	99 05	1,300?	......	......	......	......	......	......	......	74.79	70.57
Fort Polk	26 06	97 15	15	......	......	......	......	......	......	81.25	81.11	81.01
Fort Brown	25 53	97 35	50?	......	......	......	......	......	......	......	......	78.97
Ringgold Barracks	26 37	98 26	200?	......	......	......	......	......	......	......	......	......
Fort McIntosh	27 36	99 23	400?	......	......	......	......	......	......	86.38	84.60	80.76
Fort Duncan	28 45	100 41	800?	......	......	......	......	......	......	......	......	......
Fort Inge	29 09	100 03	1,000?	......	......	......	......	......	......	......	......	78.45
Fort Lincoln	29 22	99 33	900?	......	......	......	......	......	......	......	80.61	78.03
Socorro	34 10	106 50	4,560	......	......	......	......	......	......	......	......	......
Albuquerque	35 06	106 38	5,032	......	......	......	......	......	......	......	......	69.09
Cebolletta	35 15	107 20	6,200?	......	......	......	......	......	......	......	......	......
Santa Fé	35 41	106 02	6,846	32.87	35.14	43.18	52.96	54.70	71.33	......	70.22	64.37
San Diego	32 45	117 14	150?	......	......	......	......	......	......	74.27	75.33	69.93
Monterey	36 36	121 52	140	......	......	......	......	61.77	56.69	61.70	58.03	57.22
Benicia	38 03	122 08	64	......	......	......	......	......	......	......	......	......
Sacramento*	38 33	121 20	100?	......	......	......	......	......	......	72.25	69.60	64.42
Fort Vancouver	45 40	122 30	......	......	......	......	......	......	......	......	......	......
Oregon City	45 20	122 24	......	......	......	......	......	......	......	......	......	......
Fort Steilacoom	47 10	122 25	300	......	......	......	......	......	......	......	......	......
Cantonment Loring	43 04	112 27	4,800	......	......	......	......	......	......	......	63.39	59.62

* For November and December the post was at Marysville, *Camp Far West*, in the same valley, and at a distance of about 45 miles northward.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1849.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
65.57	60.27	44.56	......	80.28	67.47	......	......	96	19	....	....	Near the Colorado riv., Tex.
67.25	65.37	49.59	......	......	......	......	......	....	20	....	....	Leon river, near Brazos, Tex.
71.90	65.59	53.66	......	......	72.14	......	......	90	25	....	....	Southwestern Texas.
60.05	55.66	......	......	......	62.09	......	......	....	....	....	....	Near Fredericksburg, Texas.
74.36	72.24	62.21	......	......	75.87	......	......	89	34	....	....	Pt. Isabel, n'r mth. Rio Gr'de.
71.01	68.97	62.22	......	......	72.98	......	......	90	34	....	....	Brownsville, Low. Rio Gr'de.
72.97	69.85	61.09	......	......	......	......	......	102	32	....	....	Rio Grande, (town,) Texas.
71.19	60.11	56.65	......	......	72.68	......	......	103	32	....	....	Laredo, Texas.
68.55	62.71	53.89	......	......	......	......	......	....	31	....	....	Eagle Pass, (R. Grande,) Tex.
62.20	69.22	52.81	......	......	68.26	......	......	....	23	....	....	Leona river, Western Texas.
65.93	......	53.67	......	......	......	......	......	....	30	....	....	Rio Seco, Western Texas.
......	41.29	36.90	......	......	......	......	......	....	6	....	....	Valley R. Grande, New Mex.
56.95	48.32	38.22	......	......	58.12	......	......	....	5	....	....	Valley R. Grande, New Mex.
......	......	35.43	......	......	......	......	......	....	10	....	....	Near San Jose riv., New Mex.
48.90	39.59	33.46	50.28	......	50.95	33.82	......	91	— 6	....	....	New Mexico.
64.15	56.40	51.04	......	......	63.49	......	......	78	34	....	....	Southern California.
58.91	55.20	50.87	......	58.81	57.11	......	......	82	32	....	....	California.
......	46.15	47.95	......	......	......	......	......	....	32	....	....	Inner bay of San Francisco, Cal.
63.96	51.52	45.58	......	......	60.00	......	......	102	28	....	....	Valley Sacramento river, Cal.
......	......	34.60	......	......	......	......	......	....	18	....	....	Columbia river, Oregon.
......	......	35.42	......	......	......	......	......	....	21	....	....	Mth. Willamette riv., Oregon.
......	46.81	36.29	......	......	......	......	......	....	22	....	....	Puget's Sound, Wash. Ter'y.
47.97	34.67	22.50	......	......	47.42	......	......	....	—16	....	....	Near Fort Hall, Lewis' Fork of Columbia, Oregon.

NOTE.—Forts *Worth*, *Graham*, *Gates*, *Croghan*, *Martin Scott*, *San Antonio*, *Lincoln*, and *Inge*, form a chain of posts stretching from the northeast diagonally across the State of Texas, and succeeding each other in the order named, at the first considerable elevation of the interior plateau above the lower plain or the sea. *San Antonio* and Fort *Martin Scott* differ most in altitude and climate. The precise altitude of this border of the plateau is known only at a few points, but it cannot differ largely from the numbers here given.

Forts *Polk*, *Brown*, *Ringgold Barracks*, *McIntosh*, and *Duncan*, succeed in this order from the mouth of the Rio Grande in the ascent through its lower valley.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1849.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Sullivan	....	....	....	....	....	....	1.17	0.50?	5.24	1.86	2.55	2.47?	....	....	9.65	....	....
Fort Preble	....	....	....	....	....	....	0.40?	7.21?	2.70	4.50	5.30	3.95	....	....	12.50	....	....
Fort Constitution	....	....	....	....	....	....	1.35	4.07	1.89	6.01	3.50	3.36	....	....	11.40	....	....
Fort Adams	1.65	3.27	6.25	2.10	4.26	2.30	1.67	3.33	2.36	7.07	4.52	3.85	12.61	7.30	13.95	8.77	42.63
Fort Trumbull	....	....	....	....	....	....	....	....	7.01?	12.43?	5.88?	9.50?	....	....	23.32?	....	....
Fort Hamilton	0.44	2.12	5.11	0.52	3.75	0.82	2.76	3.01	2.84	4.50	1.45	2.43	9.38	6.59	8.79	4.99	29.75
Fort Columbus	0.61	2.26	4.87	0.62	3.47	0.78	1.43	4.63	1.55	5.63	1.88	4.01	0.96	6.84	9.06	6.88	31.74
West Point	1.03	2.07	4.55	0.90	6.10	1.08	3.15	4.84	0.48	7.63	2.31	4.11	11.55	9.07	10.42	7.21	38.25
Watervliet Arsenal	0.65	....	1.19?	1.01	5.53	5.52	....	....	0.67	5.34	1.61	2.98	7.73?	....	7.62	....	....
Plattsburg Barracks	....	....	....	....	....	....	0.95	3.60	0.70	4.20	2.30	1.20	....	....	7.20	....	....
Madison Barracks	....	....	....	....	1.89	2.07	0.91	4.06	6.51	5.21	4.99	4.85	....	7.04	16.71	....	....
Fort Ontario	1.16	1.15	2.62	1.65	3.00	1.66	0.69	1.61	2.26	6.30	2.77	2.09	7.27	3.96	11.33	5.40	27.96
Fort Niagara	....	....	....	....	....	....	2.63	7.21	5.00	4.14	3.65	2.91	....	....	12.79	....	....
Alleghany Arsenal	2.43	1.31	3.85	0.83	5.83	2.84	1.26	3.26	1.26	3.86	3.97	4.11	10.51	7.36	9.09	7.85	34.81
Carlisle Barracks	1.09	1.31	3.84	0.68	3.16	1.72	0.45	1.43	0.96	4.63	0.84	3.83	7.68	3.60	6.43	6.23	23.94
Fort Mifflin	0.71	2.69	6.05	1.64	4.04	2.26	2.16	7.36	0.48	6.52	2.25	6.18	11.73	11.78	9.25	9.58	42.34
Fort McHenry	1.02	1.15	3.63	0.87	4.18	1.50	2.06	2.55	1.90	6.27	1.06	4.44	8.68	6.11	9.23	6.61	30.63
Fort Monroe	1.70	2.10	4.06	0.98	3.11	0.70	4.13	1.98	1.99	2.91	4.86	4.12	8.15	6.81	9.76	7.92	32.64
Fort Macon	0.71	2.00	0.89	2.53	2.07	0.71	7.13	0.69	....	....	....	....	5.49	8.53	....	....	....
Fort Moultrie	0.25	1.45	1.50	0.50?	4.60	2.60	7.60	10.80	4.70	3.99	0.71	1.08	6.60?	21.00	9.40	2.78	39.78
Fort Marion	....	....	....	....	....	4.24	3.47	8.70	....	....	....	....	....	16.44	....	....	....
Key West	....	....	....	....	....	....	....	1.46	3.26	10.18	....	....	....	....	....	....	....
Fort Brooke	....	....	....	....	....	....	8.74	6.32	3.55	1.74	0.77	1.13	....	....	6.06	....	....
Fort Barrancas	0.59	0.95	0.51	1.00	2.29	3.59	7.45	....	....	....	....	....	3.80	....	....	....	....
Mount Vernon Arsenal	2.89	2.44	1.36	3.06	6.11	9.25	14.56	11.15	0.65	13.00	10.54?	4.22	10.53	34.96	24.19?	9.55	79.23
East Pascagoula	....	....	....	....	....	....	....	5.94	2.12	4.82	*1.83	....	....	....	8.77	....	....
New Orleans Barracks†	3.55	2.45	2.83	2.43	8.01	3.79	11.09	....	....	....	....	....	13.27	....	....	....	....
Fort Pike	2.30	3.26	1.63	2.14	5.60	2.60	6.30	....	....	....	....	....	9.37	....	....	....	....
Baton Rouge Barracks	3.20	6.20	1.30	2.50	....	....	10.92	5.38	2.24	6.00	5.03	2.50	....	....	13.27	11.90	....
Fort Towson	....	....	....	....	....	6.21	10.76	3.57	2.54	3.66	2.91	6.17	....	20.54	9.11	....	....
Fort Washita	2.65	2.65	2.69	6.96	14.61	4.00	13.40	4.00	3.74	4.42	2.50	2.67	24.26	21.40	10.66	7.97	64.29
Fort Smith	4.35	1.76	4.65	8.45	8.40	6.79	7.90	1.95	1.65	2.00	3.70	5.94	21.50	16.64	7.35	12.05	57.54
Fort Gibson	2.19	0.88	4.90	2.17	7.52	9.17	8.72	3.70	2.05	4.05	4.40	2.90	14.59	21.59	10.50	5.97	52.65
Fort Scott	3.26	0.18	3.30	5.38	12.20	3.49	5.77	2.62	0.56	3.86	3.78	1.03	20.88	11.88	8.20	4.27	33.23
Jefferson Barracks	3.41	0.37	2.77	1.53	2.00?	5.85	7.70	4.72	4.84	1.85	2.02	1.52	6.30?	18.27	8.71	5.30	38.58
St. Louis Arsenal	7.59	0.55	3.60	4.08	6.39	15.70?	13.67	7.95	3.96	2.80	3.35	1.90	14.07	37.32?	10.11	10.04	71.54?
Detroit Barracks	2.28	1.01	2.57	2.90	2.10	3.96	2.35	4.35	3.25	6.00	1.82	0.90	7.57	10.66	11.07	4.19	33.49
Fort Gratiot	....	....	....	....	....	....	1.80	4.70	1.12	4.20	0.96	1.66	....	....	6.28	....	....
Fort Mackinac	0.64	0.27	0.40	1.99	2.60	1.20	2.89	5.11	1.60	1.70	1.43	0.51	4.99	9.20	4.73	1.42	20.34
Fort Snelling	1.00	0.61	4.11	5.62	6.57	3.14	7.59	9.60	2.75	5.35	1.40	1.95	16.30	20.33	9.50	3.56	40.69
Fort Leavenworth	2.90	0.60	3.40	2.40	5.10	2.26	6.03	5.80	7.56	3.44	2.80	0.56	10.90	14.09	13.80	4.06	42.85
Fort Kearney	....	....	6.12	7.86?	10.74?	4.00	7.70	6.05	0.27	1.80	0.10	0.10	24.72?	17.75	2.17	....	....
Fort Laramie	....	....	....	....	....	....	....	....	0.21	2.72	0.24	0.38	....	....	3.17	....	....
Fort Croghan	....	....	....	....	....	3.70	3.00	0.40	1.20	1.30	1.40	0.90	....	7.10	3.90	....	....
Fort Gates	....	....	....	....	....	....	....	....	....	4.09	3.50	....	....	....	....	....	....

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1849.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
San Antonio	....	....	....	....	....	....	....	0.10	6.12	3.00	5.53	1.22	....	....	14.65	....	....
Fort Polk	....	....	....	....	....	....	....	2.25	4.65	2.04	0.22	1.34	....	....	6.91	....	....
Fort Brown	....	....	....	....	....	....	....	....	8.86?	2.34?	3.05	0.74	....	....	14.25?	....	....
Ringgold Barracks	....	....	....	....	....	....	....	....	‡4.48	3.02	0.32	0.91	....	....	7.82	....	....
Fort McIntosh	....	....	....	....	....	....	2.95	4.70	3.74	0.46	0.83	0.35	....	....	5.03	....	....
Fort Duncan	....	....	....	....	....	....	....	....	....	....	1.20	0.42	....	....	....	....	....
Fort Inge	....	....	....	....	....	....	....	....	....	....	2.05	2.30	....	....	....	....	....
Monterey	....	....	....	....	....	0.00	0.00	0.00	0.00	0.01	0.61	3.45	....	0.00	0.62	....	....
Benicia	....	....	....	....	....	....	....	....	....	....	4.46	....	....	....	....	....	....
Sacramento	....	....	....	....	....	....	0.00	0.00	0.00	0.20	6.41	5.20	....	....	6.61	....	....
Fort Vancouver	....	....	....	....	....	....	....	....	....	....	....	6.00	....	....	....	....	....
Oregon City	....	....	....	...	....	....	....	....	....	....	....	9.09	....	....	....	....	....
Fort Steilacoom	....	....	....	....	....	....	....	....	....	....	9.42	8.25	....	....	....	....	....

* First 28 days. † First 23 days in July. ‡ Last 20 days.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Sullivan (*a*)	63	121	32	14	23	14	15	6	32	13	27	14
Fort Preble (*b*)	105	99	37	11	45	6	7	14	17	15	52	33
Fort Constitution (*a*)	73	111	50	9	52	6	18	8	43	8	22	22
Fort Adams	215	150	79	19	36	33	41	33	75	26	89	31
Fort Trumbull (*a*)	128	117	78	6	9	40	7	21	6	43	17	35
Fort Hamilton	209	156	66	12	32	68	27	16	36	60	24	101
Fort Columbus	212	153	80	14	38	63	28	29	27	41	50	88
West Point	134	231	102	38	77	23	3	44	70	35	16	96
Plattsburg Bar'ks (*a*)	90	94	32	6	18	10	14	29	43	18	26	18
Madison Barracks (*c*)	148	158	74	17	39	27	20	19	66	47	41	24
Fort Niagara (*a*)	93	91	54	12	24	12	24	10	31	17	35	16
Alleghany Arsenal	161	204	108	28	57	53	32	22	32	85	44	39
Carlisle Barracks	244	122	68	20	18	24	85	33	30	14	112	48
Fort Mifflin	174	191	87	12	41	38	42	25	46	46	88	39
Fort McHenry	151	214	84	19	36	61	13	54	34	47	45	75
Fort Monroe	163	202	105	8	29	93	53	30	24	37	49	49
Fort Macon (*d*)	132	103	53	6	50	34	15	15	43	43	10	22
Fort Moultrie	277	88	78	0	84	37	35	23	35	50	61	39
Fort Brooke	227	138	78	0	12	55	90	66	23	37	53	27
Barrancas Bar'ks (*e*)	120	93	47	1	29	18	29	27	58	21	12	9
Mt. Vernon Arsenal	172	193	90	1	18	46	6	84	17	74	4	114
Fort Pike (*f*)	67	136	51	0	9	16	35	26	28	42	14	20
New Orleans B'ks. (*e*)	117	106	57	1	24	17	44	18	46	12	20	6
Baton Rouge Bar'ks	179	125	70	2	12	38	39	82	21	48	24	20
Fort Washita	163	202	106	5	31	64	65	70	44	39	30	20
Fort Smith	205	160	100	6	14	15	98	22	7	32	138	17
Fort Gibson	189	176	94	4	69	47	29	42	33	49	14	82
Fort Scott	146	219	87	5	58	49	34	35	87	40	30	31
Jefferson Barracks	170	195	93	8	37	32	74	54	62	30	34	41
Detroit Barracks	171	194	92	35	57	75	47	28	27	25	63	42
Fort Gratiot (*a*)	96	88	43	11	29	27	7	11	32	29	20	17
Fort Mackinac	165	200	47	24	43	41	34	38	40	46	56	67
Fort Ripley	109	75	37	14	12	7	8	27	32	24	35	21
Fort Snelling	143	222	67	25	29	32	29	81	52	61	25	56
Fort Leavenworth	199	166	64	11	32	49	35	73	50	29	28	66
Fort Kearney	217	148	49	12	64	33	35	35	79	46	38	33
Fort Laramie (*g*)	82	40	3	12	4	8	13	2	1	5	51	9
Fort Croghan	117	67	25	2	6	10	4	20	29	73	4	10
San Antonio	111	73	36	1	7	32	22	44	43	16	4	9
Fort Polk	138	46	35	1	4	11	5	97	21	13	1	30
Fort Brown (*g*)	59	63	32	0	15	6	14	37	6	2	5	7
Fort McIntosh	113	71	34	0	4	11	1	112	4	0	0	35
Monterey	83	101	20	0	53	26	8	8	27	24	11	11

(*a*) Last six months. (*b*) Last seven months. (*c*) Last ten months. (*d*) First eight months.
(*e*) First seven months. (*f*) First seven months, (last nine days of January wanting.) (*g*) Last four months.

OBSERVATIONS FOR 1849.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
91	260	57	139	60	182	24	65	127	373	54	121	110	252	55	188
182	369	25	65	27	58	57	142	67	128	61	138	209	355	134	210
209	376	26	60	71	164	33	70	173	309	31	65	90	177	90	192
144	283	131	385	166	267	131	256	299	486	105	232	358	698	126	352
38	108	160	440	29	96	86	172	24	46	173	343	67	171	141	429
128	380	271	623	109	240	66	146	144	339	240	702	97	306	405	1340
153	341	253	596	112	219	118	259	108	251	163	339	200	441	353	945
310	927	94	284	12	30	177	432	281	617	140	295	63	172	383	1191
74	128	41	75	56	92	115	232	171	307	74	113	104	172	73	119
156	320	107	188	81	114	75	137	263	536	189	412	165	411	97	255
96	344	48	169	96	286	39	97	124	307	69	176	142	425	63	222
228	334	214	268	130	141	90	128	127	208	340	711	176	491	155	383
74	181	95	186	342	606	131	224	119	297	57	101	450	901	192	621
164	391	151	381	168	329	100	235	185	347	183	400	354	824	155	434
144	291	246	472	51	81	216	253	135	284	189	310	179	384	300	697
116	208	371	714	213	398	121	205	97	188	150	279	195	300	197	367
202	555	136	314	61	114	62	122	172	318	174	373	39	90	94	160
336	989	147	463	142	418	94	261	141	440	200	517	243	588	157	453
50	92	222	451	361	594	265	476	92	191	148	313	212	354	110	221
118	197	72	105	118	172	110	195	232	455	85	150	47	75	35	70
72	136	186	446	23	54	335	1007	70	111	298	794	17	33	455	1226
36	86	66	138	140	290	103	182	114	231	168	302	57	100	81	211
97	189	69	106	177	243	73	101	183	275	49	73	82	111	23	39
47	94	153	263	158	286	329	542	85	157	191	347	96	180	82	217
126	370	257	845	262	812	282	908	176	521	157	539	120	381	80	238
55	102	60	84	394	552	90	132	30	41	126	160	552	728	67	100
275	653	188	406	115	305	168	448	132	375	195	470	58	115	329	746
232	436	197	326	136	194	141	269	350	869	159	387	121	241	123	269
150	382	129	322	296	599	216	530	247	563	119	337	138	346	165	414
227	462	301	562	187	360	112	206	108	253	102	188	254	599	169	363
117	187	109	179	27	37	45	62	128	173	117	205	82	121	69	107
171	274	165	297	135	298	151	262	162	254	184	371	224	539	268	571
49	134	28	80	31	93	110	363	129	370	97	327	140	454	85	292
116	233	129	181	118	202	323	459	208	336	243	402	100	186	223	508
130.	229	197	466	142	283	294	828	202	420	118	349	112	253	265	652
258	384	133	133	142	142	142	142	316	394	185	208	151	151	133	133
17	18	33	41	52	64	9	13	3	4	20	29	203	360	36	68
24	102	41	121	17	41	81	201	117	252	294	615	16	37	39	119
30	74	130	317	87	134	176	327	173	271	66	117	17	22	38	76
18	44	45	120	21	52	387	1147	84	258	51	122	3	6	119	482
61	147	25	49	56	106	147	361	25	58	7	19	19	64	30	78
15	30	43	109	5	11	449	1200	17	38	0	0	0	0	141	315
214	357	106	204	32	57	33	86	108	257	97.	185	44	78	46	87

MONTH OF JANUARY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	19.68	24.80	27.22	24.41	23.88	48	0	14.1	23.9	30	95	6	26	3	9
Fort Preble	21.35	23.00	28.38	26.03	24.69	40	1	15.3	23.7	60	121	3	4	2	8
Fort Constitution	21.12	24.83	29.59	26.03	25.39	42	8	16.6	17.4	41	66	13	23	11	24
Fort Adams	30.68	31.77	36.29	34.64	33.34	48	16	14.7	17.3	12	57	18	53	2	5
Fort Trumbull	30.22	32.48	37.74	32.83	33.31	54	14	20.7	19.3	7	18	46	164	2	7
Fort Hamilton	32.00	32.96	39.03	35.00	34.25	57	17	22.7	17.3	6	15	19	49	11	25
Fort Columbus	29.77	31.90	36.35	33.10	32.78	52	16	19.2	16.8	15	37	26	51	15	34
West Point	28.00	30.42	34.03	30.55	30.75	50	17	19.3	13.7	39	98	7	9	1	2
Watervliet Arsenal	18.16	21.74	28.38	21.83	22.52	58	— 2	35.5	24.5	13	36	0	0	0	0
Plattsburg Barracks	18.58	20.58	25.16	21.49	21.45	42	— 5	20.5	26.5	43	45	0	0	8	13
Madison Barracks	21.96	24.96	29.64	23.64	25.05	43	— 3	18.0	28.0	8	11	12	21	21	28
Fort Ontario	23.96	26.12	30.96	28.06	27.27	42	8	14.7	19.3	0	0	10	25	0	0
Fort Niagara	27.51	29.61	32.46	29.52	29.77	43	18	13.2	11.8	8	19	14	44	17	38
Alleghany Arsenal	30.58	32.77	38.16	33.30	33.63	56	7	22.4	26.6	23	40	17	33	10	12
Carlisle Barracks	26.51	29.74	35.54	28.75	30.13	55	— 4	24.9	34.1	9	18	5	7	42	69
Fort Mifflin	29.87	36.41	42.03	32.70	35.25	57	10	21.7	25.3	26	61	12	25	3	6
Fort McHenry	34.38	38.12	42.77	37.45	38.18	65	12	26.8	26.2	6	18	14	43	1	1
Fort Monroe	41.35	42.80	47.45	43.77	43.34	65	18	21.6	25.4	24	48	26	35	10	19
Fort Moultrie	50.93	54.38	59.83	54.45	54.89	71	32	16.1	22.9	34	139	16	61	0	0
Fort Shannon, Pilatka	48.87	53.19	56.93	55.74	52.87	77	32	24.1	20.9	0	0	31	51	5	5
Fort Brooke	66.74	69.16	74.35	71.55	70.45	79	54	8.5	16.5	0	0	20	43	46	70
Mount Vernon Arsenal	51.29	54.64	64.06	55.58	56.30	76	30	19.7	26.3	7	9	25	36	3	5
New Orleans Barracks	54.43	60.03	65.80	56.98	59.31	79	34	19.7	25.3	26	50	12	20	10	18
Baton Rouge Barracks	54.64	62.32	73.70	60.35	64.01	82	38	18.0	26.0	21	33	12	15	15	15
Fort Towson	41.32	43.16	54.41	45.51	46.10	70	29	23.9	17.1	15	24	2	5	53	97
Fort Washita	40.63	46.00	56.80	44.83	47.06	73	38	25.9	19.1	5	15	9	28	59	178
Fort Smith	36.96	44.09	57.22	47.74	46.50	74	19	27.5	27.5	1	1	3	4	19	23
Fort Gibson	37.25	41.29	49.29	40.77	42.15	66	21	23.8	21.2	40	95	17	30	27	81
Fort Scott	30.64	34.50	40.10	33.41	34.66	54	7	19.3	27.7	22	36	6	14	16	19
Jefferson Barracks	29.77	33.48	39.77	33.16	34.04	52	8	18.0	26.0	26	73	0	0	23	45
St. Louis Arsenal	28.67	33.09	40.39	34.00	34.03	55	14	21.0	20.0	22	35	10	10	7	8
Newport Barracks	33.93	36.12	41.38	38.45	37.47	60	10	22.5	27.5	21	42	8	13	13	27
Detroit Barracks	26.00	31.60	35.70	29.80	30.77	49	12	18.2	18.8	17	32	13	23	21	43
Fort Gratiot	23.74	30.06	34.41	29.51	29.43	50	— 2	20.5	31.5	12	22	23	45	11	15
Fort Mackinac	22.03	23.42	26.45	22.77	23.66	35	8	11.3	15.7	9	15	4	4	13	35
Fort Brady	18.12	20.41	27.53	21.35	21.80	41	— 6	19.2	27.8	7	16	5	11	52	149
Fort Howard	18.32	21.32	28.29	19.25	21.79	42	—11	20.2	32.8	6	14	10	14	15	22
Fort Ripley	2.29	6.58	15.83	7.09	7.94	34	—26	26.1	33.9	16	42	1	3	31	76
Fort Snelling	9.60	12.30	19.80	13.43	13.81	35	—16	21.2	29.8	9	26	7	9	14	24
Fort Leavenworth	25.80	28.67	34.29	29.22	29.49	49	4	19.5	25.5	18	27	13	13	13	13
Fort Kearney	17.51	22.48	30.90	20.80	22.92	57	— 2	34.1	24.9	24	57	11	25	11	28
Fort Worth	43.00	50.54	58.90	47.41	49.96	75	28	25.0	22.0	9	30	23	59	5	14
Fort Gates	48.00	53.38	69.48	54.00	56.21	85	34	28.8	22.2	20	59	4	6	3	6
Fort Croghan	46.41	56.58	65.45	48.12	54.14	80	28	25.9	26.1	8	12	0	0	2	2
Fort Martin Scott	43.96	53.26	65.06	53.80	54.15	80	28	25.8	26.2	0	0	4	9	1	1
San Antonio	48.78	55.69	70.39	54.27	57.28	82	36	24.7	21.3	5	21	22	52	10	20
Fort Polk	64.32	66.09	69.41	67.16	66.74	78	46	11.3	20.7	6	19	6	17	5	14

MONTH OF JANUARY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
11	37	13	27	1	2	22	47	28	85	1.38	2.09	2.93	1.93	2.08	6	25	2	11	3.83	
1	6	1	3	2	2	16	24	25	34	4.61	5.22	5.16	5.16	5.04	13	18	2	10	4.85	
3	13	3	7	2	5	25	39	24	43	2.00	2.93	3.06	1.64	2.41	8	23	2	9	6.14	
9	24	6	6	27	51	32	56	18	52	5.09	5.19	5.42	5.16	5.22	16	15	6	4	5.24	
3	7	0	0	10	30	17	48	37	127	4.35	4.87	5.29	6.09	5.15	15	16	6	8	10.18	
2	4	13	25	11	37	4	10	58	194	4.30	5.20	4.90	4.80	4.80	17	14	3	8	4.69	
5	8	8	16	3	5	9	17	38	93	4.19	4.80	4.16	5.09	4.56	15	16	10	3	5.57	
1	1	27	35	9	16	10	17	23	57	2.29	2.87	3.09	4.26	3.13	10	21	8	8	6.06	
1	4	26	63	3	6	49	115	27	74	6.00	5.48	5.48	5.42	5.60	15	16	2	5	1.81	
0	0	44	78	0	0	28	45	0	0	2.19	2.15	3.50	2.25	2.52	9	22	5	1	1.10	
3	5	23	49	23	44	25	66	4	9	3.80	3.77	3.54	3.41	3.65	13	18	6	8	3.16	
11	14	0	0	56	120	0	0	47	123	5.25	6.32	6.48	6.09	6.04	16	15	2	4	1.68	
3	9	9	14	23	74	30	102	15	37	1.28	2.13	2.00	3.00	2.11	9	22	6	7	4.01	Therm. protected.
2	3	8	17	8	25	20	48	4	10	2.51	1.90	2.45	3.90	2.69	10	21	11	4	3.76	
6	8	5	10	1	2	40	68	14	50	5.20	5.13	6.00	5.27	5.40	16	15	6	6	4.28	
0	0	7	14	23	49	24	53	28	54	3.61	3.93	3.41	3.87	3.71	14	17	7	3	4.29	
3	10	2	3	4	13	7	29	11	42	3.00	2.71	2.41	4.03	3.06	11	20	5	4	3.58	
6	15	4	12	13	28	26	40	14	24	3.03	3.35	3.06	3.84	3.32	12	19	11	1	4.32	
5	11	19	69	27	95	3	13	15	51	3.54	3.50	3.35	4.90	3.82	14	17	12	0	2.95	
8	14	0	0	8	10	4	8	8	10	5.51	5.32	5.45	5.45	5.43	18	13	7	0	8.03	
16	24	9	18	15	30	11	19	1	3	5.61	5.80	5.87	6.84	6.03	19	12	7	0	1.44	
13	29	23	39	6	16	2	3	40	57	3.29	3.70	4.03	4.32	4.84	11	20	12	0	9.59	
6	10	26	57	8	17	10	15	15	27	2.97	3.00	2.68	4.87	3.38	12	19	11	0	7.40	
11	11	31	40	13	17	7	8	9	11	2.38	2.77	3.38	2.90	2.86	8	23	14	0	16.62	
3	9	3	8	1	2	9	18	7	17	2.19	2.74	4.19	4.80	3.48	12	19	8	0	4.03	
3	12	11	38	12	41	19	57	4	16	3.88	3.77	5.03	5.83	4.63	16	15	6	1	3.10	
16	25	1	1	13	13	61	70	5	7	4.93	6.70	6.00	5.67	5.82	18	13	6	1	2.87	
3	11	9	26	5	20	2	7	17	36	3.84	3.80	4.80	6.06	4.62	13	18	2	3	1.41	
6	14	37	78	10	18	15	28	8	14	2.90	2.20	2.14	3.27	2.63	9	22	5	4	1.59	
0	0	69	199	5	22	1	4	0	0	3.23	2.94	3.81	4.32	3.57	12	19	6	4	1.65	
4	5	38	46	10	18	18	49	8	14	3.06	5.20	6.13	1.13	3.88	17	14	3	3	2.09	
5	8	21	32	8	13	35	72	9	38	7.70	7.80	7.90	7.50	7.72	16	15	7	4	10.57?	Inaccurate.
8	15	20	47	5	14	14	34	20	43	5.73	7.22	7.80	3.90	6.16	14	17	2	10	1.58	Clearness inaccurate.
12	21	5	13	17	45	28	53	15	39	4.35	5.03	5.35	5.32	5.01	16	15	3	7	1.35	
21	41	21	38	11	32	29	61	12	17	1.80	1.93	2.29	3.09	2.28	7	24	1	8	0.37	
18	51	3	11	10	47	13	68	11	43	1.27	2.90	2.22	2.28	2.17	7	24	2	16	1.83	
7	24	5	7	11	24	28	54	7	14	1.96	2.51	3.51	3.83	2.95	8	23	3	8	....	
22	48	7	20	3	7	34	104	12	27	5.38	5.74	4.64	4.25	5.00	15	16	1	8	1.36	
20	49	21	44	31	69	3	9	15	43	1.40	2.30	2.40	3.30	2.35	7	24	1	11	1.67	
27	33	14	22	6	9	6	6	24	39	2.45	2.90	3.54	3.87	3.19	14	17	3	4	1.10	
3	9	22	44	15	31	17	26	7	17	3.61	3.71	4.32	3.87	3.88	14	17	0	6	0.47	
22	61	9	42	27	84	14	43	12	35	3.19	3.77	4.12	5.00	4.02	12	19	4	0	0.60	
3	4	34	64	13	31	15	35	12	38	3.51	4.35	5.82	4.74	4.60	16	15	4	0	....	
11	18	11	14	48	69	5	5	31	58	5.96	6.51	7.00	6.12	6.40	23	8	4	0	1.00	
28	51	11	27	10	19	4	6	40	81	3.42	3.74	4.67	5.90	4.43	14	17	6	0	1.07	
20	34	22	48	21	45	4	9	15	53	7.84	8.27	8.84	6.42	7.84	19	12	6	0	0.64	Clearness inaccurate.
65	213	0	0	5	10	0	0	33	125	4.22	3.70	5.54	4.74	4.55	15	16	9	0	0.53	

MONTH OF JANUARY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brown	56.42	62.51	67.70	63.35	62.49	79	44	16.5	18.5	13	30	2	4	15	35
Ringgold Barracks	56.45	63.41	75.67	66.41	65.48	88	40	22.5	25.5	21	47	10	13	24	37
Fort McIntosh	52.38	69.16	72.00	58.58	60.78	88	36	17.2	24.8	7	17	12	22	7	13
Fort Duncan	48.58	56.48	71.75	57.72	58.63	88	37	29.4	21.6	11	23	9	18	31	70
Fort Inge	45.83	52.48	68.20	53.15	54.91	78	29	23.1	25.9	..	..	..	..	..	..
Fort Lincoln	49.00	54.00	67.00	58.00	57.00	78	40	21.0	17.0	17	19	5	5	20	20
Socorro	27.50	38.00	57.00	36.50	39.75	62	12	22.3	27.7	22	35	9	11	61	85
Albuquerque	26.70	37.10	42.00	35.00	35.20	49?	12	13.8	23.2	35	63	4	8	9	24
Cebolletta	27.30	35.10	43.50	33.50	34.80	60	12	25.2	22.8	10	24	0	0	0	0
Las Vegas	29.50	46.19	47.71	29.22	38.15	62	10	23.8	28.2	17	48	10	18	1	2
Santa Fé	20.60	31.16	44.67	24.56	30.25	65	— 2	34.7	32.3	8	8	5	9	8	8
San Diego	46.09	52.09	57.16	49.67	51.25	63	34	11.7	12.3	..	..	..	..	..	..
Monterey	40.00	50.00	61.00	46.00	49.25	68	32	18.7	17.3	62	124	1	2	2	2
Benicia	43.30	49.00	50.10	47.10	47.37	64	32	16.6	15.4	0	0	26	44	20	56
Camp Far West	39.50	44.70	49.30	42.70	44.05	62	26	18.0	18.0	32	65	1	2	0	0
Vancouver	35.13	37.78	42.29	37.34	38.14	51	19	12.9	19.1	5	5	9	12	34	52
Oregon City	35.68	38.48	40.61	37.29	38.01	49	20	11.0	18.0	8	11	0	0	6	8
Fort Steilacoom	33.06	35.93	38.41	36.10	35.87	47	23	11.1	12.9	10	10	22	27	1	1
Cantonment Loring	20.67	23.81	28.58	24.19	24.31	48	— 6	23.7	30.3	23	27	3	3	7	7

MONTH OF JANUARY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
51	139	10	25	1	4	5	13	5	12	1.80	2.55	3.58	5.16	3.28	9	22	5	0	4.30	
14	30	9	18	3	4	16	17	3	9	2.00	2.51	4.06	3.77	3.08	11	20	7	0	3.14	
23	60	8	22	2	3	3	4	20	48	1.19	2.06	3.03	4.61	2.72	9	22	8	0	0.39	
28	71	7	16	4	11	10	21	14	45	4.58	5.29	6.51	7.80	6.05	19	12	5	0	0.40	
..	..	..	..	..	..	..	..	..	..	2.35	2.92	5.25	5.26	3.95	15	16	8	0	0.38	
20	21	25	28	0	0	12	12	5	7	....	....	....	....	....	11	20	..	..	....	
4	4	11	21	1	6	0	0	5	15	6.00	7.00	6.50	6.50	6.50	22	9	1	1	0.05	
12	25	26	43	9	24	10	26	13	38	6.27	6.00	5.48	6.20	5.98	21	10	1	3	....	
0	0	1	5	0	0	17	30	14	32	6.20	7.00	7.00	6.50	6.68	24	7	2	8	....	
0	0	20	82	12	61	46	172	14	67	5.00	5.10	5.71	4.80	5.14	18	13	0	2	....	
14	14	13	15	33	42	24	31	19	23	....	....	....	....	....	23	8	1	8	....	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	16	15	0	0	0.00	
6	11	38	86	7	17	7	15	0	0	....	....	....	....	....	12	19	14	0	2.95	Inaccurate.
12	35	4	15	37	88	17	42	3	8	2.74	3.74	4.00	3.86	3.58	10	21	13	0	4.44	
1	2	73	209	1	16	1	2	0	0	6.84	7.00	7.10	6.90	6.86	14	17	17	0	6.31	
15	22	33	51	5	7	11	11	2	2	1.65	2.58	2.19	2.00	2.11	5	26	16	0	6.66	
5	7	60	138	27	61	8	11	5	13	1.93	2.22	2.32	2.35	2.21	5	26	13	5	11.48	
23	44	0	0	21	70	28	81	15	15	1.90	2.70	2.40	3.32	2.58	4	27	14	8	8.52	
2	9	66	169	2	2	9	34	2	2	1.68	2.00	3.26	3.42	2.59	9	22	1	6	....	

MONTH OF FEBRUARY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	23.43	26.60	31.57	27.07	27.17	45	— 6	17.8	33.2	21	52	2	3	2	4
Fort Preble	22.96	26.32	32.32	28.03	27.41	46	— 8	18.6	35.4	27	74	1	1	2	5
Fort Constitution	22.92	27.60	34.71	29.07	28.57	48	— 6	19.4	34.6	36	63	0	0	4	6
Fort Adams	30.71	32.14	38.67	34.78	34.07	48	6	13.9	28.1	6	26	12	46	15	45
Fort Trumbull	30.17	33.64	37.55	34.21	33.90	53	6	19.1	27.9	2	6	13	43	2	8
Fort Hamilton	32.10	33.30	41.50	34.60	35.37	59	12	23.6	23.4	9	24	4	9	7	18
Fort Columbus	29.67	33.10	38.00	32.92	33.42	54	9	20.6	24.4	9	27	7	11	3	11
West Point	29.14	32.28	37.57	32.00	32.75	58	14	25.3	18.7	18	60	0	0	0	0
Watervliet Arsenal	21.25	25.53	29.28	25.25	25.33	40	— 6	14.7	31.3	21	83	0	0	0	0
Plattsburg Barracks	21.80	25.19	27.60	23.24	24.46	50	—14	25.5	38.5	19	29	11	19	4	7
Madison Barracks	21.00	24.28	31.28	21.25	24.43	43	—14	18.6	38.4	8	14	17	29	9	14
Fort Ontario	23.96	25.92	31.28	27.07	27.06	45	— 1	18.0	28.0	0	0	8	24	0	0
Fort Niagara	25.30	28.90	32.17	27.67	28.51	51	6	22.5	22.5	7	33	0	0	9	27
Alleghany Arsenal	26.73	31.28	38.29	31.17	31.87	57	2	25.1	29.9	7	11	3	7	5	7
Carlisle Barracks	27.19	32.14	39.16	31.12	32.40	59	6	26.6	26.4	6	13	14	24	20	37
Fort Mifflin	30.10	39.96	46.75	34.07	37.72	68	10	30.3	27.7	5	15	5	16	5	20
Fort McHenry	34.53	39.75	45.96	38.89	39.78	64	13	24.2	26.8	3	8	6	26	3	10
Fort Monroe	38.43	41.21	49.28	43.14	43.01	64	19	21.0	24.0	9	16	16	24	8	11
Fort Moultrie	45.92	50.57	56.42	49.82	50.68	72	24	21.3	26.7	13	45	26	110	0	0
Oglethorpe Barracks	47.85	56.05	63.17	55.09	55.55	82	31	26.4	24.6	1	1	9	25	0	0
Fort Brooke	60.85	63.28	68.68	65.75	64.64	79	44	14.4	20.6	13	24	18	32	23	39
Mount Vernon Arsenal	45.11	51.00	59.10	51.44	51.66	79	26	27.3	25.7	4	7	10	14	5	7
New Orleans Barracks	47.68	57.30	63.66	51.64	55.32	84	26	28.7	29.3	9	24	15	28	15	25
Baton Rouge Barracks	47.72	56.46	73.03	56.92	58.51	90	31	41.5	27.8	14	32	13	16	8	16
Fort Towson	41.67	44.92	55.00	46.92	47.13	82	12	34.9	35.1	22	57	0	0	24	43
Fort Washita	39.89	42.78	56.28	46.21	46.29	86	11	39.7	35.3	4	14	3	9	15	42
Fort Smith	39.60	50.60	65.21	50.64	51.51	87	4	35.5	47.5	10	17	8	12	18	20
Fort Gibson	35.08	42.17	50.28	42.02	42.39	79	4	36.6	38.4	32	105	10	27	9	23
Fort Scott	30.30	35.15	42.80	34.14	35.59	71	— 3	35.4	38.6	19	37	16	28	6	6
Jefferson Barracks	30.64	34.64	41.61	34.57	35.36	72	— 2	36.6	37.4	36	123	0	0	30	73
St. Louis Arsenal	28.43	31.75	41.86	33.00	33.76	66	— 5	32.2	38.8	9	11	13	43	7	13
Newport Barracks	31.82	38.03	40.32	32.00	35.54	64	0	28.5	35.5	21	61	10	18	6	11
Detroit Barracks	23.40	29.80	36.50	28.90	29.65	53	3	23.3	26.7	14	33	20	58	13	26
Fort Gratiot	20.78	27.57	33.00	26.21	26.89	56	— 2	29.1	28.9	19	50	13	30	3	3
Fort Mackinac	19.00	23.03	27.89	22.46	23.09	39	—10	15.9	33.1	11	15	18	39	7	23
Fort Brady	13.26	22.20	31.26	20.25	21.74	44	—11	22.3	31.7	9	22	3	9	24	55
Fort Howard	16.46	20.96	32.96	23.14	23.38	52	—14	28.6	37.4	17	47	5	10	2	3
Fort Ripley	5.35	13.32	23.46	10.00	13.03	42	—28	29.0	41.0	4	7	9	21	6	10
Fort Snelling	10.47	16.14	26.01	18.71	17.83	43	—24	25.2	41.8	5	8	2	4	8	15
Fort Leavenworth	26.14	29.96	38.07	31.21	31.34	58	—11	26.7	42.3	12	20	12	14	10	14
Fort Kearney	19.10	25.38	38.46	26.18	27.28	56	— 7	28.7	34.3	19	33	3	7	7	17
Fort Worth	41.85	50.17	60.64	49.78	50.61	86	16	35.4	34.6	21	76	9	25	1	1
Fort Gates	46.00	53.57	67.00	51.82	54.35	88	20	33.4	34.6	19	64	0	0	3	6
Fort Croghan	42.82	60.39	63.28	48.17	53.66	94	15	40.3	38.7	5	20	4	9	7	15
Fort Martin Scott	44.17	53.92	62.11	49,46	52.39	86	21	33.6	31.4	4	10	7	12	2	6
San Antonio	47.28	55.32	70.22	54.33	56.78	93	25	36.2	31.8	7	29	25	81	2	4
Fort Brown	61.42	65.80	71.07	65.85	66.03	87	38	21.0	28.0	13	33	9	25	10	23

MONTH OF FEBRUARY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	8	12	26	11	19	18	39	33	74	1.67	2.14	2.67	2.46	2.24	6	22	7	7	2.32	
5	12	4	10	4	8	37	64	32	54	5.71	6.21	6.07	6.42	6.10	14	14	6	5	3.20	
0	0	14	31	12	24	22	37	24	41	1.82	3.10	3.85	1.53	2.58	6	22	6	3	2.72	
14	40	6	19	29	79	19	36	11	43	6.50	5.89	6.28	6.68	6.34	15	13	4	1	3.51	
12	37	2	7	21	74	16	52	44	131	6.10	5.85	5.75	7.25	6.24	16	12	7	2	5.48	
3	7	10	29	24	58	14	57	41	163	6.10	6.60	7.00	6.80	6.62	19	9	5	1	1.74	
3	8	11	17	9	14	27	49	43	129	6.28	6.32	5.67	6.60	6.22	18	10	7	1	2.64	
7	18	20	36	8	22	3	8	48	145	5.43	4.82	4.39	5.11	4.94	14	14	6	5	3.33	
0	0	15	69	11	35	42	172	23	87	4.78	5.32	5.96	5.00	5.26	13	15	5	4	0.40?	
6	7	21	42	20	22	12	19	19	30	3.90	3.11	3.15	3.25	3.35	11	17	3	4	0.98?	
8	15	20	41	18	43	26	88	6	15	4.21	3.96	3.60	4.92	4.17	10	18	7	4	3.55	
35	79	0	0	34	60	0	0	35	126	5.30	5.71	6.82	5.32	5.81	14	14	2	6	1.08	
3	4	16	36	26	70	28	105	23	69	2.75	2.82	3.25	4.25	3.27	9	19	3	8	0.67	
10	19	7	12	34	98	12	26	8	28	3.28	2.92	3.35	4.89	3.61	11	17	5	6	3.45	
6	10	9	19	0	0	37	107	20	70	8.10	7.26	8.12	6.26	7.44	15	13	5	3	2.76	
8	19	19	34	24	58	27	90	19	61	5.57	5.28	5.53	5.85	5.55	13	15	6	1	2.52	
5	14	8	33	13	64	15	70	16	81	4.28	4.21	4.71	5.89	4.77	16	12	6	1	2.43	
2	5	7	19	13	36	35	75	16	41	4.96	4.75	5.50	6.00	5.30	17	11	9	2	2.20	
6	19	11	42	30	130	16	64	10	41	3.82	4.25	4.46	6.64	4.79	12	16	10	1	2.83	
2	2	0	0	21	36	12	15	13	41	2.51	3.00	5.28	5.00	3.95	9	12	5	0	3.03	Last 21 days.
5	10	6	8	18	31	25	53	4	9	4.14	5.74	5.78	7.46	5.78	17	11	6	0	5.92	
12	16	7	10	19	34	5	8	23	40	4.62	4.35	4.64	5.85	4.86	13	15	7	0	4.81	
8	14	9	19	25	44	12	22	19	41	4.43	4.93	4.75	6.68	5.20	14	14	6	0	4.53	
10	19	21	29	8	14	28	38	10	25	4.82	5.60	6.10	6.04	5.64	12	16	8	0	7.45	
8	15	10	18	4	7	10	24	11	33	2.75	2.75	2.67	4.75	3.23	9	19	7	0	4.07	
12	48	21	73	11	34	37	135	9	35	3.78	3.67	3.78	5.64	4.19	11	17	4	3	0.68	
10	19	1	1	14	15	46	49	5	5	6.10	7.42	7.10	6.35	6.74	19	9	4	1	0.95	
3	13	13	43	11	36	5	9	28	73	5.71	5.10	4.42	5.32	5.16	15	13	4	1	3.17	
10	15	22	51	8	15	10	18	21	41	2.27	3.19	4.90	3.25	3.40	14	14	5	3	1.52	
0	0	41	143	5	17	0	0	0	0	3.25	4.18	3.75	4.64	3.96	12	16	4	6	3.22	
5	9	17	21	11	18	23	63	14	48	4.75	6.21	6.75	1.21	4.73	13	15	4	6	3.00	[inaccurate.
8	12	23	33	6	12	21	41	9	31	7.20	7.90	8.10	7.00	7.55	15	13	4	5	11.81	Rain and clearness
0	0	23	37	8	22	10	31	24	55	5.00	6.80	6.50	3.92	5.56	10	18	6	6	1.56	
5	7	5	9	24	63	26	74	17	44	4.71	5.39	4.35	4.67	4.78	12	16	3	6	1.02	
10	15	6	10	22	45	21	50	17	25	2.82	3.60	3.39	4.28	3.52	9	19	0	5	0.06	
21	60	13	25	12	34	8	22	20	85	4.00	3.16	4.70	3.13	3.75	11	17	2	7	0.83	
6	11	13	30	10	39	34	76	9	21	6.00	6.17	4.82	6.21	5.80	15	13	3	5	....	
39	97	1	2	15	45	13	43	25	75	6.62	5.96	6.78	7.35	6.68	15	13	0	5	0.91	
12	26	9	13	26	59	19	61	16	35	4.00	5.14	4.60	5.78	4.88	14	14	2	4	0.83	
10	16	17	19	3	5	12	30	25	40	4.50	4.50	4.67	5.39	4.76	14	14	3	3	2.21	
5	13	12	21	12	22	10	16	23	60	5.07	4.03	5.07	5.21	4.85	15	13	1	3	0.06	
15	41	18	55	12	46	11	24	8	34	5.17	5.35	5.17	6.28	5.49	18	10	4	1	0.30	
6	17	35	93	9	33	3	9	21	75	4.35	4.89	5.78	6.10	5.28	15	13	3	1	....	
21	40	8	23	36	56	4	8	17	37	7.28	6.85	7.10	6.39	6.91	20	8	4	1	0.90	
21	60	12	36	16	34	2	5	31	114	3.61	5.28	5.53	5.57	5.00	15	13	7	1	0.69	
23	60	11	31	18	54	2	4	16	63	5.13	8.93	9.25	6.17	7.37	16	12	5	0	2.07	Clearness inaccurate.
50	157	5	12	4	12	1	2	11	35	4.75	5.39	5.39	7.10	5.66	15	13	3	0	3.80	

MONTH OF FEBRUARY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Ringgold Barracks.....	55.78	65.03	77.07	64.39	65.57	100	32	34.4	33.6	15	40	9	15	9	16
Fort McIntosh........	51.25	62.07	73.57	60.53	61.85	101	30	39.1	31.9	0	0	16	32	9	13
Fort Duncan..........	49.57	56.75	70.62	58.03	58.74	94	29	35.3	29.7	17	54	5	8	38	92
Fort Inge.............	45.46	52.50	69.10	56.42	55.87	85	23	29.1	32.9	..	..	..	..	..	..
Fort Lincoln..........	48.43	58.00	67.00	52.68	56.53	83	30	26.5	26.5	19	48	3	3	17	17
Socorro..............	28.50	38.00	55.00	39.00	40.12	67	13	26.9	27.1	11	16	6	8	9	13
Albuquerque..........	28.80	39.10	47.40	46.60	40.50	57	17	16.5	23.5	50	89	8	15	0	0
Cebolletta.............	28.50	39.80	56.50	35.50	40.08	70	20	29.9	20.1	23	42	3	3	0	0
Las Vegas.............	26.03	42.01	42.99	26.14	34.30	54	10	19.7	24.3	15	60	3	9	3	11
Santa Fé..............	22.46	33.07	44.67	27.42	31.91	56	7	24.1	24.9	9	12	7	9	7	10
San Diego............	46.00	54.00	59.60	50.10	52.42	71	40	18.6	12.4	5	10	3	8	6	8
Monterey..............	41.50	50.50	65.00	43.60	50.15	74	32	23.8	18.2	64	105	9	16	2	4
Benicia...............	42.17	49.45	56.46	48.57	49.16	63	33	13.8	16.2	4	16	21	36	32	67
Camp Far West.......	38.60	46.50	55.40	43.00	45.88	64	32	18.1	13.9	32	47	19	30	2	4
Fort Vancouver.......	36.75	41.10	47.71	38.39	40.99	56	20	15.0	21.0	9	12	6	8	55	76
Fort Steilacoom.......	34.80	38.50	44.35	38.83	39.12	56	22	16.9	17.1	20	40	14	22	4	4
Cantonment Loring....	17.82	21.10	32.24	25.07	24.06	46	— 8	22.0	32.0	34	41	4	4	10	11

MONTH OF FEBRUARY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	29	24	43	3	3	5	6	9	33	3.39	4.67	6.32	5.32	4.92	16	12	3	0	0.61	
38	79	2	2	5	6	5	6	26	67	3.42	4.89	5.75	4.07	4.53	18	10	5	0	0.72	
19	44	7	17	5	12	2	4	12	43	4.39	5.25	6.89	7.92	6.11	18	10	4	0	0.12	
..	..	..	..	..	..	..	..	..	..	4.21	5.85	6.46	5.50	5.51	19	9	7	0	0.71	
25	30	25	26	4	4	6	7	7	10	2.50	3.00	4.38	4.20	3.52	12	16	..	..	....	
10	14	32	68	1	2	15	19	15	20	7.00	8.00	7.50	8.50	7.75	23	5	2	1	0.52	
4	10	28	60	3	13	11	36	7	18	6.18	6.28	6.04	7.50	6.30	20	8	2	2	0.05	Temp. inac. at 9 p.m.
0	0	0	0	0	0	0	0	6	10	6.40	8.30	8.50	7.80	7.75	20	8	1	6	1.10	
4	10	2	7	41	160	25	81	14	65	4.01	4.50	4.75	3.50	4.19	13	15	0	4	....	Temp. inaccurate.
16	30	5	5	5	6	8	11	51	69	6.11	6.75	7.60	7.54	7.00	17	11	1	5	1.26	
15	42	4	5	8	25	8	16	10	26	4.50	5.07	6.03	7.04	5.66	18	10	8	0	1.13	
3	6	19	28	2	4	3	6	9	18	1.78	2.17	1.96	2.07	2.00	12	16	4	*4	2.00	*Hail.
2	5	6	23	20	51	15	39	11	32	6.00	6.40	7.50	8.43	7.08	20	8	5	†1	1.68	† Sleet.
4	8	47	102	3	9	0	0	1	1	8.90	9.30	9.00	9.60	9.20	19	9	7	0	0.60	Clearness inaccurate.
12	23	10	23	7	13	2	6	4	4	1.28	2.75	4.50	4.18	3.18	7	21	12	0 ?	2.60	
7	7	4	5	27	74	14	17	20	35	1.80	2.12	4.40	5.38	3.42	8	20	13	1	4.83	[30 inches.
0	0	46	109	0	0	6	17	1	3	3.46	3.40	4.15	5.21	5.06	10	18	0	9	....	Mean depth of snow

MONTH OF MARCH, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	22.32	25.44	32.66	28.77	27.29	46	10	18.7	17.3	35	86	20	51	0	0
Fort Preble	27.80	31.83	35.83	31.61	31.77	46	8	14.2	23.8	31	90	10	27	4	12
Fort Constitution	27.09	32.09	37.70	31.32	32.05	60	6	28.0	26.0	42	101	11	40	11	21
Fort Adams	32.42	34.90	38.16	36.12	35.40	52	13	16.6	22.4	5	12	14	66	9	29
Fort Trumbull	31.90	35.03	41.35	36.12	36.10	56	14	19.9	22.1	7	23	18	66	0	0
Fort Hamilton	33.20	35.30	43.20	37.00	37.17	65	18	27.8	19.2	19	51	12	28	5	12
Fort Columbus	31.06	35.19	41.51	36.90	36.16	62	12	25.8	24.2	11	21	23	44	0	0
West Point	31.03	34.39	40.77	35.66	35.46	67	14	31.5	21.5	27	79	5	11	0	0
Watervliet Arsenal	26.87	30.06	35.26	29.00	30.29	58	10	27.7	20.3	31	118	0	0	0	0
Plattsburg Barracks	23.80	27.70	34.11	29.60	28.80	48	— 2	19.2	30.8	23	44	19	36	7	13
Madison Barracks	25.77	30.58	35.09	30.50	30.49	51	4	20.5	26.5	5	13	18	29	7	16
Fort Ontario	28.58	31.77	34.45	30.64	31.36	52	10	20.6	21.4	0	0	9	38	0	0
Fort Niagara	28.12	35.10	36.18	31.50	32.47	43	20	10.5	12.5	3	8	9	28	11	34
Alleghany Arsenal	30.51	32.51	43.74	35.45	35.50	63	5	27.5	30.5	13	18	23	36	2	2
Carlisle Barracks	30.10	38.90	43.16	35.23	36.85	66	7	29.1	29.9	5	14	8	18	17	38
Fort Mifflin	33.09	41.42	48.35	37.38	40.06	72	18	32.0	22.0	16	41	12	38	2	5
Fort McHenry	39.04	44.08	47.06	40.93	42.78	70	27	27.2	15.8	23	40	15	35	8	16
Fort Monroe	43.55	46.16	50.32	46.45	46.57	70	31	33.4	15.6	19	44	23	47	27	62
Fort Moultrie	52.77	56.90	60.00	55.19	56.21	78	38	21.8	18.2	15	60	33	146	5	15
Oglethorpe Barracks	53.88	59.45	66.19	58.77	59.57	86	38	26.4	21.6	5	8	28	35	4	4
Fort Brooke	67.29	70.51	74.80	71.09	70.92	82	48	11.1	22.9	7	8	15	22	15	21
Mount Vernon Arsenal	55.19	60.45	69.90	60.66	61.55	83	31	21.4	30.6	8	25	21	34	3	3
New Orleans Barracks	56.66	67.97	71.63	59.30	63.89	85	36	21.1	27.9	15	32	4	5	15	17
Baton Rouge Barracks	52.70	67.00	74.09	60.09	63.47	92	35	28.5	28.5	17	42	9	29	36	80
Fort Towson	46.64	52.90	61.45	52.93	53.48	75	28	21.5	25.5	31	86	5	9	27	58
Fort Washita	44.64	53.38	61.09	52.74	52.96	82	26	29.1	26.9	5	23	10	40	28	90
Fort Smith	50.22	59.64	68.19	53.09	57.78	85	28	27.2	29.8	3	4	3	5	32	48
Fort Gibson	42.20	49.40	56.80	49.30	49.42	81	26	31.6	23.4	26	71	24	67	10	27
Fort Scott	35.06	42.18	50.25	41.60	42.27	68	18	25.7	24.3	17	33	23	49	15	17
Jefferson Barracks	36.52	41.97	49.45	42.10	42.51	74	22	31.5	20.5	28	89	0	0	28	80
St. Louis Arsenal	34.32	40.87	49.51	40.61	41.33	72	19	30.7	22.3	17	35	14	60	12	17
Newport Barracks	37.22	40.94	48.35	43.26	42.44	64	22	21.6	20.4	23	59	10	27	15	27
Detroit Barracks	26.50	36.20	43.30	35.50	35.37	55	15	19.6	20.4	12	30	9	21	39	87
Fort Gratiot	23.12	31.16	36.06	28.16	29.62	48	6	18.4	23.6	34	95	10	20	10	35
Fort Mackinac	22.25	26.90	30.03	23.51	25.67	40	3	14.3	22.7	15	17	17	29	17	24
Fort Brady	16.83	31.48	35.22	22.14	26.92	48	— 6	21.1	32.9	4	14	8	31	40	123
Fort Howard	22.67	29.09	36.27	27.90	28.98	54	2	25.0	27.0	2	5	31	103	9	16
Fort Ripley	9.67	22.54	30.06	18.80	20.27	45	—20	24.7	40.3	15	30	9	21	12	15
Fort Snelling	18.20	22.80	30.30	24.90	24.05	47	— 5	23.0	29.0	13	20	0	0	18	34
Fort Leavenworth	31.58	34.82	44.58	37.90	37.22	61	9	23.8	28.2	17	20	17	19	5	5
Fort Kearney	22.45	31.06	42.54	30.93	31.74	59	9	27.3	22.7	15	46	16	34	13	24
Fort Worth	46.00	56.45	65.29	54.77	55.63	88	30	32.4	25.6	24	101	8	37	4	12
Fort Graham	48.71	57.58	68.03	57.03	57.84	86	28	28.2	29.8	35	82	7	16	32	30
Fort Gates	50.45	61.12	72.09	56.22	59.97	85	29	25.0	31.0	28	83	8	21	6	8
Fort Croghan	48.64	65.35	80.58	54.77	62.33	93	28	30.7	34.3	1	5	6	24	10	22
Fort Martin Scott	48.51	59.32	66.77	53.80	57.10	86	27	28.9	30.1	7	21	10	38	1	2
San Antonio	53.87	63.27	74.75	58.24	62.53	87	36	24.5	26.5	8	48	25	100	11	35

MONTH OF MARCH, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
8	19	6	12	1	2	26	47	13	29	1.51	2.32	2.90	2.90	2.41	7	24	1	6	2.80	
5	16	1	2	6	13	43	81	17	41	5.32	5.48	5.22	5.96	5.50	15	16	3	7	2.70	
4	9	8	11	2	4	26	55	18	43	2.67	4.06	4.16	2.83	3.43	12	19	4	6	3.45	
6	18	4	9	8	14	33	96	42	164	5.61	5.48	4.61	4.93	5.16	16	16	5	7	6.82	
0	0	0	0	24	76	21	60	54	185	5.48	5.74	5.35	6.16	5.68	16	15	6	6	10.68?	
7	14	6	13	5	23	2	6	63	225	5.90	5.80	5.70	6.90	6.02	19	12	6	5	5.55	
5	13	1	3	2	6	23	68	52	137	6.00	5.58	5.40	5.42	5.60	17	14	6	6	4.64	
7	12	13	26	10	23	10	31	62	128	4.03	4.22	5.68	4.55	4.61	14	17	3	10	4.84	
0	0	7	27	9	22	54	207	23	98	5.58	5.26	5.45	5.58	5.47	13	18	1	5	0.84	
10	10	23	38	14	21	16	26	9	24	3.20	3.27	3.50	3.16	3.28	10	21	2	3	0.28	
3	4	8	16	19	49	45	128	8	19	4.58	4.16	4.70	5.67	4.78	14	17	4	5	2.13	
28	60	0	0	28	56	0	0	55	171	7.19	7.16	7.64	6.64	7.16	18	13	1	4	0.37	Inaccurate.
16	45	8	23	7	23	43	150	18	51	3.20	3.70	2.14	5.13	3.54	13	18	4	6	0.49	Therm. protected.
1	2	6	18	17	42	28	80	6	17	4.48	3.74	3.48	5.90	4.40	12	19	4	4	2.74	
11	19	6	15	0	0	47	103	25	74	7.10	7.40	7.50	7.13	7.28	16	15	5	4	3.70	Clearness inaccurate.
7	21	15	38	18	49	32	91	15	43	4.83	4.38	4.29	5.41	4.73	14	17	9	4	5 39	
4	20	14	48	22	64	7	19	18	47	4.03	4.50	4.60	3.70	4.21	15	16	6	2	5.90	
4	11	5	23	6	14	17	42	17	46	4.22	3.22	4.00	4.77	4.05	13	18	9	2	3.04	
4	17	11	48	19	91	12	45	14	67	3.25	2.83	3.51	4.54	3.53	10	21	17	0	6.01	
7	12	5	9	15	31	18	40	11	16	4.20	4.00	3.83	3.93	4.00	10	21	11	0	7.00	
12	21	9	13	34	84	9	12	11	22	5.25	5.93	6.80	7.06	6.26	22	9	6	0	3.50	
15	26	12	17	24	48	6	10	24	57	3.25	3.75	3.64	6.30	4.24	9	22	8	0	2.09	
4	4	20	35	30	43	15	21	9	15	3.68	3.06	2.90	6.61	4.06	11	20	6	0	2.27	
19	44	16	26	6	15	6	14	4	15	4.54	5.35	5.83	6.12	5.46	16	15	6	0	3.13	
7	16	9	24	4	11	10	24	1	3	2.77	3.61	3.70	4.58	3.67	11	20	6	0	2.85	
12	47	14	51	26	82	21	79	5	21	4.00	4.74	4.09	4.87	4.42	15	16	7	0	2.49	
10	10	7	11	8	10	41	51	3	4	8.12	7.64	7.22	7.25	7.56	17	14	2?	0	1.55?	Clearness inaccurate.
7	14	4	13	17	51	6	16	26	72	4.80	5.10	4.70	5.60	5.05	17	14	5	0	4.90	
23	37	16	45	1	1	11	16	12	19	3.21	3.29	3.13	5.20	3.94	13	18	5	2	2.40	
4	12	44	121	0	0	14	50	2	5	3.29	3.36	4.00	4.06	3.68	14	17	8	2	4.66	Winds local.
15	27	16	20	4	9	20	50	13	53	6.74	7.55	7.29	1.49?	5.77	15	16	5	2	4.89	
3	8	5	5	7	12	33	100	10	23	5.00	5.30	5.20	5.70	5.30	16	15	6	2	12.74?	Therm. protected.
3	7	0	0	2	7	30	64	13	30	5.30	7.22	7.87	3.64	6.01	13	18	3	8	3.84	Clearness inaccurate.
4	8	4	7	9	32	27	89	22	70	4.58	5.58	4.61	5.41	5.04	15	16	3	10	3.19	
20	46	6	6	10	19	9	15	20	32	1.87	2.32	2.32	4.61	2.80	9	22	1	4	0.32	
10	34	3	7	11	46	6	18	22	93	4.80	4.81	3.27	4.27	4.29	14	17	3	9	1.83	
4	7	8	24	12	24	29	77	9	18	4.00	4.51	3.90	4.32	4.18	12	19	1	10	....	
24	57	6	9	6	18	19	52	26	61	6.03	5.22	5.12	4.83	5.30	17	14	0	8	1.05	
13	19	12	15	30	50	15	36	18	46	3.70	3.40	3.30	4.60	3.75	16	15	1	4	2.23	
28	38	13	30	9	13	5	8	25	35	3.90	3.60	3.54	4.80	3.96	12	19	4	3	3.64	
16	45	13	36	10	26	6	8	21	47	4.35	4.58	4.41	5.80	4.76	16	15	2	3	1.06	
17	55	28	113	13	55	3	5	7	24	5.29	5.09	4.77	6.48	5.41	17	14	3	1	1.20	
10	17	12	26	7	11	12	13	6	14	4.19	5.00	4.90	5.74	4.96	16	15	6	1	1.35	
10	31	31	88	11	29	7	19	12	42	4.61	4.51	5.03	5.80	5.00	16	15	6	1	....	
10	28	13	20	49	72	4	11	28	80	6.86	6.90	6.96	6.83	6.89	19	12	5	1	3.10	
19	39	13	32	19	49	5	6	36	116	3.35	4.19	5.26	6.51	4.82	16	15	8	1	1.57	
28	94	15	49	18	53	4	18	10	41	....	....	....	....	....	19	12	3	0	1.37	

MONTH OF MARCH, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brown	65.03	69.77	77.87	69.77	70.61	86	42	15.4	28.6	0	0	11	31	2	5
Ringgold Barracks	61.25	69.58	84.06	68.93	70.95	100	35	29.1	35.9	8	31	10	20	10	21
Fort McIntosh	57.29	69.09	80.87	67.25	68.62	101	34	33.4	34.6	9	33	27	47	5	7
Fort Duncan	54.95	64.82	80.12	64.88	66.19	94	36	27.8	30.2	17	45	8	23	38	84
Fort Inge	52.64	59.32	74.26	61.22	61.86	89	30	27.2	31.8	..	..	..	..	..	..
Fort Lincoln	50.00	63.15	74.12	62.00	62.32	85	30	22.7	32.3	18	34	3	3	7	7
Socorro	35.25	45.83	63.41	50.50	48.74	76	22	27.3	26.7	22	31	14	26	12	16
Albuquerque	31.60	45.40	54.90	52.90	46.20	62	21	15.8	25.2	23	47	8	18	6	13
Cebolletta	35.40	45.80	56.60	43.20	45.25	65	25	19.8	20.2	7	10	14	19	0	0
Las Vegas	31.12	49.35	49.51	35.12	41.28	66	15	24.7	26.3	4	8	7	24	8	24
Santa Fé	28.80	43.75	57.50	33.72	40.94	66	13	25.1	27.9	3	3	17	20	6	6
San Diego	48.38	58.09	60.38	52.64	54.87	77	39	22.1	15.9	10	22	6	12	2	4
Monterey	42.40	51.70	62.60	46.00	50.67	78	32	27.3	18.7	46	85	8	15	3	5
San Francisco	45.09	51.41	53.31	49.33	49.79	77	37	27.2	12.8	..	..	..	..	..	..
Benicia	44.28	52.17	58.25	50.09	51.20	78	35	26.8	16.2	1	2	2	7	11	40
Camp Far West	41.20	50.50	57.50	47.60	49.20	78	29	29.8	20.2	42	84	5	11	7	8
Fort Vancouver	31.87	35.80	44.70	36.13	37.12	59	25	21.9	12.1	3	5	16	24	65	119
Fort Steilacoom	37.03	41.10	45.20	38.70	40.51	62	30	21.5	10.5	11	12	8	11	8	10
Cantonment Loring	18.96	22.61	33.09	26.29	25.23	50	—10	24.8	35.2	25	30	0	0	17	21

MONTH OF MARCH, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't ini nches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
81	243	0	0	0	0	0	0	21	66	5.16	4.67	6.61	7.12	5.89	20	11	3	0	2.30	
40	100	5	12	1	3	0	0	7	20	3.06	5.38	6.67	6.35	5.37	18	13	6	0	1.93	
47	112	3	5	8	9	1	2	20	46	2.93	4.41	6.00	3.61	4.24	17	14	5	1	0.46	
16	36	13	24	6	14	10	20	4	16	4.22	5.22	7.70	6.90	6.01	18	13	4	0	0.02	
..	..	..	..	..	..	..	..	..	..	3.12	5.22	6.80	6.64	5.45	17	14	9	0	1.42	
14	15	57	76	8	10	3	5	3	3	2.00	3.55	5.84	4.80	4.05	13	18	0:	0	....	
11	23	23	44	7	15	6	8	14	32	6.50	7.00	6.50	8.00	7.00	19	12	2	0	0.60	
9	25	30	60	11	49	15	55	12	38	5.60	5.80	5.23	7.10	5.93	16	15	3	1	0.01	Temp. in error at 9
1	2	0	· 0	0	0	0	0	20	36	5.60	8.10	8.40	7.80	7.48	21	10	2	4	0.63	[p. m.
6	16	4	15	26	118	51	222	7	18	5.66	5.46	5.48	5.16	5.44	17	14	0	3	....	Inaccurate.
30	42	9	9	18	26	17	23	20	25	6.80	7.50	7.45	8.10	7.46	24	7	1	2	1.00	
25	52	8	16	7	20	26	55	26	96	4.22	5.23	6.17	6.21	5.46	19	12	6	0	1.30	
9	16	34	57	8	27	7	17	4	8	2.60	3.90	2.29	2.18	2.74	14	17	9	0	4.22	Clearness inaccurate.
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	..	..	12	0	8.38	
15	59	5	17	65	207	11	29	13	27	5.06	5.16	5.24	5.23	5.17	17	14	11	0	2.45	
0	0	55	212	3	6	6	11	0	0	4.20	4.20	4.00	5.00	4.35	16	15	13	0	5.60	
21	41	7	14	1	1	3	5	1	2	3.03	3.61	4.09	4.03	3.69	13	18	13	0?	6.70	
16	24	3	8	47	100	15	29	14	16	1.25	1.24	3.10	4.80	2.60	6	25	13	7	6.70	
0	0	54	121	0	0	15	34	2	3	2.74	3.00	3.55	6.00	3.82	11	20	7	7	3.87?	

MONTH OF APRIL, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	36.90	40.30	45.06	41.23	40.87	66	20	25.1	20.9	22	57	0	0	8	21
Fort Preble	35.33	41.90	44.73	39.06	40.25	68	24	27.8	16.2	20	54	5	13	5	16
Fort Constitution	34.73	42.30	46.70	38.93	40.66	66	22	25.3	18.7	25	75	2	5	12	42
Fort Adams	38.33	42.90	47.03	42.70	42.74	61	26	18.3	16.7	3	12	15	55	7	22
Fort Trumbull	36.76	44.60	49.56	42.36	43.32	63	26	19.7	17.3	2	5	25	94	1	2
Fort Hamilton	40.10	43.30	51.50	44.60	45.00	69	28	24.0	17.0	2	6	9	24	5	11
Fort Columbus	38.53	43.83	50.66	43.30	44.08	68	28	23.9	16.1	4	11	10	17	6	11
West Point	38.83	44.80	51.47	43.40	44.62	68	28	23.4	16.6	31	103	1	4	1	2
Watervliet Arsenal	36.43	41.70	46.50	39.03	40.94	70	22	29.1	18.9	21	69	0	0	0	0
Plattsburg Barracks	31.13	37.17	45.22	38.26	37.94	71	14	33.1	23.9	19	38	0	0	8	9
Madison Barracks	33.50	40.60	46.66	41.43	40.55	69	17	28.5	23.5	7	11	4	6	18	31
Fort Ontario	36.23	42.50	44.90	37.10	40.18	69	25	28.8	15.2	0	0	18	40	0	0
Fort Niagara	33.66	42.32	45.21	38.72	39.98	74	22	34.0	18.0	6	12	8	25	23	69
Alleghany Arsenal	36.21	46.00	55.68	46.36	46.06	78	20	32.0	26.0	18	35	7	9	17	24
Carlisle Barracks	38.06	49.04	54.40	44.26	46.46	77	24	30.5	22.5	3	7	11	30	16	32
Fort Mifflin	39.90	48.50	56.46	45.13	47.50	78	27	31.5	20.5	3	9	5	15	5	13
Fort McHenry	46.20	54.05	55.08	47.02	50.59	72	32	21.4	18.6	16	38	11	22	16	30
Fort Monroe	47.00	50.86	54.80	51.63	51.07	73	38	21.9	13.1	2	2	16	39	39	91
Fort Moultrie	58.23	64.43	66.50	60.96	62.53	77	40	14.5	22.5	5	18	29	134	1	3
Oglethorpe Barracks	60.00	68.50	74.60	64.40	66.87	88	40	21.1	26.9	5	6	13	29	7	16
Fort Dallas	75.57	80.43	81.24	79.00	79.06	84	69	5.0	10.0	6	20	8	35	12	34
Fort Brooke	68.43	73.96	78.96	73.13	73.62	85	54	11.4	19.6	2	3	11	16	4	5
Mount Vernon Arsenal	59.50	66.26	75.03	65.66	66.61	88	45	21.4	21.6	5	9	5	7	3	3
New Orleans Barracks	59.22	72.63	77.35	63.32	68.13	90	38	21.9	30.1	9	11	4	4	10	11
Baton Rouge Barracks	63.67	73.73	84.44	69.53	72.84	94	49	21.2	23.8	17	21	9	13	3	7
Fort Towson	53.50	59.36	67.00	59.40	59.81	78	36	18.2	23.8	25	58	3	8	13	17
Fort Washita	53.33	59.00	67.53	58.16	59.50	81	40	21.5	19.5	7	23	28	93	19	63
Fort Smith	49.73	59.66	65.20	59.46	58.51	85	36	26.5	22.5	4	8	5	8	40	71
Fort Gibson	48.40	55.50	62.60	54.90	55.35	83	35	27.6	20.4	15	33	15	32	4	5
Fort Scott	41.13	49.20	56.60	47.20	48.53	79	28	30.5	20.5	21	45	23	38	15	31
Jefferson Barracks	43.23	49.60	56.77	44.53	48.53	76	24	27.5	24.5	11	42	10	24	18	50
St. Louis Arsenal	43.00	50.66	54.56	46.00	48.55	78	28	29.5	20.5	9	13	5	9	11	20
Newport Barracks	44.33	48.23	61.13	50.97	51.16	78	30	26.9	21.1	28	93	12	32	10	17
Detroit Barracks	36.83	48.46	51.33	40.62	44.31	76	24	31.7	20.3	5	17	7	14	35	76
Fort Gratiot	32.40	43.73	49.76	40.96	41.71	70	15	28.3	26.7	9	29	19	59	18	51
Fort Mackinac	30.55	35.65	38.70	30.80	33.92	63	14	29.1	19.9	12	17	21	35	24	42
Fort Howard	32.46	38.33	45.33	35.19	37.83	74	11	36.2	26.8	17	39	14	35	17	30
Fort Brady	30.90	42.50	42.23	31.90	36.88	68	8	31.1	28.9	6	13	2	6	15	37
Fort Ripley	23.50	35.03	41.56	30.06	32.54	68	2	35.5	30.5	13	29	6	15	3	10
Fort Snelling	32.70	37.90	44.10	37.03	35.43	74	17	38.6	18.4	24	53	14	38	8	21
Fort Leavenworth	39.00	43.10	53.20	47.03	45.58	81	28	35.4	17.6	13	13	14	16	13	17
Fort Kearney	30.63	39.40	50.33	39.40	39.94	78	21	38.0	19.0	16	47	25	49	6	13
Fort Worth	53.46	63.46	71.00	59.90	61.96	92	34	30.0	28.0	10	32	5	12	0	0
Fort Graham	54.53	62.85	71.15	60.59	62.28	92	36	29.7	26.3	7	22	10	34	2	7
Fort Gates	55.66	67.43	74.10	61.16	64.59	96	37	31.4	27.6	16	59	11	37	1	1
Fort Croghan	51.86	68.43	78.30	56.36	63.73	96	32	32.3	31.7	4	17	23	80	2	3
Fort Martin Scott	54.23	63.53	75.36	58.33	62.87	88	34	25.1	28.9	11	53	2	4	0	0

MONTH OF APRIL, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
18	46	25	46	13	34	12	27	14	42	1.80	3.13	3.80	3.26	3.00	9	21	2	3	1.50?	Clearness inaccurate.
7	21	13	24	11	27	31	67	31	62	5.90	6.10	6.10	6.30	6.10	16	14	5	3	4.60	
7	18	22	42	6	9	25	50	18	33	3.06	4.60	4.90	2.46	3.76	15	15	6	3	4.70	
16	30	10	18	23	58	40	121	0	0	5.00	5.53	4.47	5.77	5.19	17	13	6	2	4.97	
13	32	3	9	33	95	8	28	36	159	5.96	5.83	4.73	6.70	5.81	17	13	8	2	7.43?	
17	35	24	47	23	70	2	10	34	132	4.90	4.10	4.80	5.70	4.87	15	15	8	2	1.44	
18	37	16	38	9	19	15	27	40	132	5.46	4.26	4.72	5.50	4.98	14	16	7	3	2.72	
7	19	43	101	6	15	3	6	18	65	3.73	3.90	4.50	5.67	4.45	12	18	6	5	4.30	
12	57	29	112	8	29	23	90	23	98	5.63	5.96	5.76	5.36	5.68	15	15	6	5	2.92	
0	0	65	95	0	0	26	55	0	0	5.10	5.12	4.24	5.30	4.94	14	16	6	2	3.78	
4	6	27	46	21	36	30	84	3	8	5.50	6.96	6.06	5.90	6.10	17	13	6	2	2.87	
28	48	0	0	23	45	0	0	50	158	7.40	7.83	8.36	7.16	7.69	16	14	5	2	3.39	Clearness inaccurate.
6	16	9	22	22	66	28	102	12	31	4.30	4.72	4.11	4.80	4.48	14	16	7	2	0.46?	
5	10	17	42	6	14	20	70	2	4	3.36	4.36	4.96	4.53	4.30	15	15	10	3	2.59	
18	39	12	25	15	31	17	40	27	85	7.40	7.16	6.26	7.02	6.96	17	13	8	2	2.38	
17	50	25	45	24	62	16	50	21	60	4.26	4.36	4.43	5.40	4.61	11	19	11	2	2.98	
2	3	21	41	8	22	23	41	14	39	3.70	5.90	5.80	4.13	4.88	16	14	10	1	3.85	Temp. inaccurate.
18	29	15	22	5	15	17	39	5	14	4.10	3.80	3.76	4.76	4.11	11	19	9	0	2.47	
14	50	8	31	42	159	11	43	7	18	3.53	3.96	4.20	4.96	4.14	12	18	9	0	2.59	
3	5	15	25	22	41	34	74	3	5	4.83	5.13	4.50	5.20	4.91	15	15	9	0	6.72?	
37	111	6	21	0	0	4	12	3	8	4.38	7.00	6.80	7.24	6.36	16	5	..	0	....	For the last 21 days.
8	10	6	8	34	69	23	34	9	21	6.90	6.83	7.13	6.96	6.95	23	7	2	0	1.65	
23	53	16	27	26	37	10	23	40	60	3.56	4.50	4.93	4.63	4.40	13	17	9	0	4.22	
3	4	24	41	36	54	16	19	6	14	4.13	4.63	3.80	5.53	4.52	13	17	6	0	4.10	
25	35	19	26	16	20	15	23	8	12	4.20	5.23	6.20	5.23	4.22	15	15	8	0	9.40?	Temp. in excess.
5	9	19	29	3	9	6	12	5	16	2.03	2.36	2.83	3.96	2.80	8	22	12	0	4.79	
14	48	5	16	19	67	9	22	15	51	3.36	3.93	4.73	5.56	4.40	13	17	12	0	3.33	
3	7	7	11	15	26	20	56	18	46	4.36	4.80	5.23	6.46	5.21	16	14	10	0	5.28	
4	11	7	17	10	27	3	8	36	83	3.10	3.30	3.80	5.60	3.95	12	18	8	0	4.73	
6	10	20	55	3	7	9	22	17	47	2.90	3.30	3.90	4.30	3.60	11	19	10	2	3.13	
10	28	33	94	9	35	16	62	12	50	2.37	3.00	3.47	4.73	3.39	11	19	11	1	5.02	
9	15	20	29	14	26	24	78	16	57	....	....	....	....	....	13	17	8	1	5.85	
2	5	17	41	6	31	21	69	16	53	....	....	....	....	....	12	18	11	1	9.34?	Inaccurate.
5	10	9	21	4	6	35	78	10	19	....	....	....	....	....	13	17	10	2	2.00	
12	28	15	37	13	44	16	45	11	35	4.53	5.76	5.60	4.36	5.06	14	16	7	2	2.61	
13	30	4	7	11	31	18	43	13	32	2.53	3.16	3.43	5.83	3.74	11	19	6	7	0.73	
6	16	18	51	2	4	24	59	8	17	4.53	4.20	4.96	6.13	4.96	15	15	7	5	....	
33	112	1	4	12	38	14	41	19	96	3.25	3.20	3.21	5.20	3.95	12	18	7	6	2.15	Temp. in error at 9 a. m.
16	47	3	5	3	4	35	113	28	61	5.73	5.33	5.40	5.80	5.56	18	12	5	4	2.67	
8	15	6	17	12	43	18	56	26	85	2.30	3.20	2.87	3.70	3.02	12	18	7	4	2.60	
13	19	16	29	0	0	8	25	37	71	3.00	2.83	3.50	4.20	3.38	11	19	8	1	1.74	
7	15	2	3	11	33	3	4	35	117	3.66	4.46	3.96	4.47	4.14	14	16	5	5	1.07	
8	29	31	115	7	21	10	33	4	17	4.63	4.83	5.70	6.00	5.29	14	16	7	0	4.70	
13	32	33	70	9	24	2	3	10	26	5.50	5.86	6.53	6.30	6.05	19	11	9	0	4.25	
6	16	47	131	5	14	19	29	6	21	4.06	4.43	5.06	5.46	4.75	14	16	9	0	....	
15	31	4	13	50	128	6	11	8	26	5.83	5.20	4.96	5.43	5.36	17	13	7	0	3.40	
23	89	23	74	9	24	1	2	21	56	3.96	4.76	5.46	5.66	4.96	14	16	12	0	4.60	

MONTH OF APRIL, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
San Antonio	63.43	69.66	76.66	67.67	69.35	90	49	20.7	20.3	2	10	21	90	8	25
Fort Brown	66.73	76.73	78.86	70.63	73.24	92	52	18.8	21.2	3	4	18	43	8	15
Ringgold Barracks	67.46	77.23	89.56	73.43	76.92	103	58	26.1	18.9	7	15	6	10	16	26
Fort McIntosh	61.76	76.80	87.06	70.53	74.04	102	42	28.0	32.0	13	22	17	37	9	14
Fort Duncan	58.41	71.58	81.10	68.78	69.97	99	38	29.0	32.0	19	39	9	23	34	72
Fort Inge	54.66	61.83	71.30	64.66	63.11	88	35	24.9	28.1	..	..	..	..	..	..
Fort Lincoln	56.00	66.30	74.27	61.00	64.39	90	40	25.6	24.6	17	25	9	9	4	4
Socorro	42.00	52.00	71.50	55.50	55.25	82	32	26.8	23.2	21	40	7	11	12	19
Albuquerque	38.80	55.70	61.60	58.60	50.20	68	27	17.8	23.2	25	59	3	4	19	63
Cebolletta	36.70	51.60	61.90	49.10	49.82	74	32	24.2	17.8	3	10	10	18	5	6
Las Vegas	36.71	58.80	60.80	41.10	46.20	78	29	31.8	17.2	8	18	9	20	1	4
Santa Fē	37.20	54.06	69.40	42.23	50.72	80	24	29.3	26.7	1	1	13	15	15	21
San Diego	53.10	63.06	64.70	56.80	59.41	73	45	13.6	14.4	10	18	1	3	2	4
Monterey	50.36	56.93	59.73	51.33	54.59	74	45	19.4	9.6	14	31	0	0	2	4
San Francisco	51.20	56.24	58.10	52.27	54.45	76	44	21.5	10.5	0	0	2	4	0	0
Camp Far West	45.80	60.30	70.20	53.90	57.55	84	34	26.5	23.5	43	86	4	7	0	0
Fort Vancouver	50.29	57.67	65.50	52.98	56.61	71	42	14.4	14.6	8	18	1	1	4	5
Fort Steilacoom	40.70	49.80	54.93	43.90	47.33	70	38	22.7	9.3	12	12	36	60	2	8
Cantonment Loring	33.20	43.10	53.23	41.33	42.71	72	26	29.3	16.7	19	46	0	0	3	3

MONTH OF APRIL, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
30	94	18	60	13	40	2	5	10	46	....	....	....	....	....	18	12	7	0	3.34	
61	179	7	19	8	19	2	3	14	34	4.10	4.96	6.66	7.46	5.79	17	13	3	0	0.05	
53	173	8	16	3	11	0	0	5	15	4.70	4.43	5.10	4.13	4.59	15	15	3	0	0.79	
54	141	2	2	3	4	3	8	14	25	4.70	5.23	6.53	3.96	5.11	19	11	8	0	0.51	
19	42	11	27	4	7	3	10	4	9	4.76	6.90	7.60	7.80	6.76	23	7	5	0	0.98	
..	..	..	..	..	..	..	..	..	..	2.96	5.33	6.36	5.13	4.95	16	14	6	0	1.11	
19	22	46	63	5	5	6	11	6	10	2.40	3.30	4.30	3.10	3.28	14	16	4	0	0.50	
17	29	15	27	10	26	5	12	21	50	8.00	8.10	7.50	8.20	7.95	22	8	3	0	0.42	
14	45	10	26	12	46	12	51	13	41	7.23	7.13	4.83	5.97	6.30	20	10	2	0	0.02	Temp. in error at 9 [p. m.
6	9	0	0	0	0	0	0	22	55	8.50	8.80	7.50	7.10	7.98	22	8	2	2	0.55	
8	25	19	65	7	26	10	17	12	46	7.56	8.30	8.03	6.00	7.47	24	6	1	1	00.2	Temp. in ex. at 9 a.m.
16	22	19	25	28	42	11	19	11	23	8.93	8.60	7.70	8.70	8.48	22	8	1	2	0.65	Temp. in excess at 3 [p. m.
27	61	4	7	7	19	22	48	27	87	3.80	6.30	6.90	5.90	5.72	18	12	2	0	0.09	
0	0	9	11	8	21	17	40	12	29	....	....	....	....	....	18	12	2	0	0.33	
8	29	0	0	0	0	0	0	104	309	6.16	6.24	7.12	7.90	6.86	25	5	..	..	....	
0	0	28	91	6	18	26	53	4	10	7.00	7.50	8.00	8.20	7.68	24	6	4	0	1.40	
1	1	21	29	26	39	41	64	16	34	6.93	8.16	8.32	6.54	7.49	20	10	3	0	0.60	
13	21	0	0	13	45	8	17	27	48	3.50	4.70	5.37	6.60	5.04	16	14	8	0	1.00	
0	0	60	129	1	7	21	68	0	0	5.40	5.83	5.40	6.70	5.83	17	13	6	3	3.27	

MONTH OF MAY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	39.87	48.71	50.96	46.67	46.55	63	36	16.4	10.6	3	4	42	88	8	19
Fort Preble	45.87	52.06	52.38	47.64	49.47	68	34	18.5	15.5	13	17	10	19	20	37
Fort Constitution	44.67	50.67	55.96	46.74	49.51	70	36	20.5	13.5	13	26	9	16	27	58
Fort Adams	49.10	54.58	56.48	52.03	53.04	64	41	11.0	12.0	2	8	17	61	14	33
Fort Trumbull	48.19	56.06	58.83	51.70	53.69	73	38	19.3	15.7	1	2	42	125	4	14
Fort Hamilton	49.00	54.90	59.80	53.70	54.35	75	42	20.6	12.4	4	8	18	45	19	42
Fort Columbus	48.71	54.32	61.00	53.77	54.45	79	40	24.5	14.5	9	21	14	28	11	21
West Point	47.51	54.77	58.97	52.71	53.49	82	36	28.5	27.5	25	61	4	8	1	2
Watervliet Arsenal	49.71	55.06	57.92	51.09	53.44	79	40	25.5	13.5	16	50	2	5	2	6
Plattsburg Barracks	44.40	48.30	56.60	49.25	49.64	73	35	23.4	14.6	2	2	22	24	8	8
Madison Barracks	44.48	51.09	57.45	49.64	50.91	69	33	18.1	17.9	1	2	13	15	12	16
Fort Ontario	44.93	49.41	51.38	45.45	47.79	68	36	20.2	11.8	0	0	30	49	0	0
Fort Niagara	44.83	53.25	62.16	49.33	52.39	82	38	29.6	11.4	1	3	3	8	9	21
Alleghany Arsenal	45.25	54.70	63.54	52.41	53.97	78	32	24.0	22.0	25	40	10	14	6	9
Carlisle Barracks	47.14	59.25	66.20	53.16	56.48	78	34	21.5	22.5	3	6	6	13	24	48
Fort Mifflin	50.38	59.09	66.45	55.45	57.82	84	38	26.2	19.8	11	22	17	42	8	14
Fort McHenry	56.77	64.83	66.35	56.87	61.20	81	48	19.8	13.2	18	41	27	71	8	24
Fort Monroe	58.39	63.09	68.32	62.19	62.99	79	48	16.0	15.0	4	10	22	43	17	43
Fort Moultrie	66.38	73.61	76.83	70.22	71.76	84	56	12.3	15.7	9	31	26	110	4	11
Oglethorpe Barracks	66.51	77.20	78.71	71.11	73.38	92	52	18.6	14.4	5	9	24	52	11	21
Fort Dallas	73.26	82.00	82.60	79.00	79.22	90	65	10.8	14.2	7	15	16	45	23	55
Fort Hamer	68.55	79.90	86.80	74.96	77.55	93	58	15.5	19.5	12	29	10	28	20	39
Fort Brooke	71.58	76.67	81.22	76.16	76.41	87	66	10.6	10.4	2	4	8	13	4	5
Mount Vernon Arsenal	64.19	72.23	80.83	71.48	73.18	94	50	20.8	23.2	11	19	19	40	6	9
New Orleans Barracks	65.34	76.22	80.82	66.66	72.26	92	48	19.8	24.2	8	10	5	7	5	6
Baton Rouge Barracks	68.90	79.40	85.20	74.00	76.90	96	54	19.1	22.9	5	7	18	35	5	11
Fort Towson	59.67	68.38	74.96	65.90	67.22	88	46	20.8	21.2	20	37	8	12	5	10
Fort Washita	58.38	66.96	75.90	64.03	66.31	90	44	23.7	22.3	13	25	21	61	9	25
Fort Smith	58.30	66.20	77.10	67.50	67.27	92	44	24.7	23.3	9	14	12	20	40	55
Fort Gibson	57.74	67.84	75.71	65.25	66.63	89	44	22.4	22.6	10	21	22	54	5	14
Fort Scott	52.80	64.24	71.20	59.26	61.87	89	34	27.1	27.9	14	26	20	35	11	18
Jefferson Barracks	54.13	63.19	71.35	60.42	62.27	87	39	24.7	23.3	24	77	4	8	16	48
St. Louis Arsenal	52.00	62.16	71.13	60.61	61.47	90	35	28.5	26.5	27	39	7	8	17	26
Newport Barracks	49.58	58.48	68.61	61.64	59.32	79	40	19.7	19.3	35	86	12	27	7	10
Detroit Barracks	44.61	60.74	62.93	61.90	55.04	83	29	25.0	26.0	2	2	22	30	19	30
Fort Gratiot	41.16	50.96	57.29	46.25	48.91	80	26	31.1	22.9	17	38	22	53	28	61
Fort Mackinac	39.45	49.64	56.03	47.51	48.10	72	30	23.9	18.1	28	62	22	45	25	53
Fort Brady	38.90	49.24	56.00	45.13	47.31	83	31	35.7	16.3	4	12	2	4	0	0
Fort Howard	38.35	52.64	62.25	47.22	50.11	78	30	27.9	20.1	10	23	15	33	22	48
Fort Ripley	39.64	54.49	62.48	47.58	50.99	88	24	37.0	27.0	11	24	0	0	1	2
Fort Snelling	48.05	57.06	63.64	54.48	55.81	86	31	30.2	24.8	12	19	3	6	22	49
Fort Leavenworth	52.38	61.74	70.32	61.61	61.51	90	32	28.5	29.5	16	18	14	16	6	7
Fort Kearney	45.19	61.16	72.64	56.61	58.90	89	26	20.1	22.9	2	2	9	18	7	9
Fort Worth	59.77	70.96	76.41	64.80	67.98	93	44	25.0	24.0	8	16	12	37	1	4
Fort Graham	59.54	69.54	78.45	66.25	68.45	98	40	29.5	28.5	19	49	10	27	24	34
Fort Gates	58.08	71.12	79.32	65.29	68.58	95	40	26.4	28.6	27	66	4	7	0	0
Fort Croghan	52.22	68.93	77.48	55.58	63.55	94	40	30.4	23.6	6	15	13	42	0	0

MONTH OF MAY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
18	33	5	8	21	42	4	10	17	29	2.01	2.42	2.55	2.87	2.46	12	19	8	0	5.10	
22	52	3	6	8	24	25	45	23	36	4.90	4.51	3.67	4.51	4.40	14	17	11	0	15.50?	Temp. inaccurate.
14	32	18	34	1	2	28	48	14	24	2.74	3.25	2.64	1.58	2.55	9	22	15	0	8.31	
15	41	21	43	23	46	30	80	2	8	4.84	4.06	2.58	3.10	3.65	12	19	17	0	5.75	
12	34	0	0	29	80	18	66	18	73	5.00	3.41	2.35	4.12	3.72	13	18	14	0	8.52	
7	13	15	32	13	40	7	24	41	127	5.30	4.50	3.90	4.70	4.60	14	17	11	0	6.74	
18	43	11	36	12	30	19	46	30	81	5.13	4.64	4.03	4.54	4.58	14	17	15	0	9.20	
14	36	31	71	9	19	7	17	33	80	2.97	2.87	2.48	4.74	3.26	11	20	16	0	8.26	
0	0	41	132	11	38	30	86	22	57	5.19	4.42	4.84	4.87	4.83	14	17	16	0	4.70	
10	10	20	23	35	38	8	14	17	21	2.25	2.90	2.60	3.11	2.72	10	21	11	0	7.13	
1	1	17	26	50	84	28	83	0	0	3.51	3.74	4.61	4.32	4.05	12	19	20	0	6.15	
8	14	0	0	51	101	0	0	35	124	6.74	6.61	7.77	6.70	6.96	16	15	11	0	3.04	
4	8	3	7	7	14	19	57	1	2	5.10	4.16	3.50	4.50	4.29	5	7	3	0	0.70	Last 12 days.
1	2	3	4	20	51	15	42	9	23	4.93	5.51	4.41	4.83	4.92	16	15	12	0	3.30	
13	28	4	10	6	15	32	81	36	100	6.26	7.20	7.90	7.13	7.12	14	16	11	0	4.83	Clearness inaccurate.
9	27	20	40	19	51	32	70	8	17	5.03	4.35	4.54	5.38	4.82	16	15	15	0	7.65	
4	11	8	13	20	45	14	39	25	74	5.29	5.90	5.54	4.64	5.34	19	12	12	0	3.08	
15	34	8	18	14	27	18	37	23	32	6.00	5.42	5.00	6.26	5.67	16	15	8	0	3.24	
25	89	16	71	20	81	17	52	5	24	4.25	5.19	5.03	6.35	5.21	14	17	8	0	4.10	
21	52	7	14	22	61	14	29	17	46	5.80	5.56	4.64	5.87	5.47	16	15	7	0	6.00	
12	31	21	49	5	15	14	34	10	12	3.00	5.30	5.00	4.60	4.48	17	14	..	..	....	
8	25	1	2	10	22	19	62	11	34	2.35	2.93	4.06	2.74	3.02	14	17	11	0	....	
8	10	8	12	36	71	28	46	5	19	7.54	7.22	6.48	6.54	6.94	23	8	11	0	3.98	
17	33	10	16	13	23	6	18	33	72	5.54	5.26	4.09	6.03	5.23	18	13	9	0	6.72	
0	0	8	10	29	47	37	53	13	20	5.77	5.52	4.93	7.70	5.98	20	11	7	0	6.20	
28	43	17	26	30	44	13	21	3	3	5.17	6.15	6.14	6.62	6.02	20	11	7	0	4.19	
6	11	21	33	2	5	5	7	1	3	3.09	3.61	3.62	6.34	4.17	14	17	8	0	2.04	
15	31	6	15	46	143	6	20	5	16	4.38	4.22	4.90	5.93	4.86	17	14	11	0	4.22	
0	0	11	14	13	24	29	55	6	14	4.67	6.54	6.22	6.90	6.08	20	11	5	0	3.12	
5	15	10	19	24	58	4	13	24	35	4.13	4.38	5.67	6.90	5.27	16	15	5	0	0.37?	
11	27	22	52	13	26	9	13	11	16	2.80	3.40	3.20	4.12	3.47	15	16	8	0	2.19	
8	19	46	110	6	18	10	33	6	16	4.23	4.39	4.61	6.03	4.84	17	14	9	0	3.46	
31	32	9	9	8	14	7	12	23	42	....	....	....	....	....	..	..	8	0	3.41	
0	0	10	15	4	6	45	113	8	25	....	....	....	....	....	18	13	4	0	3.58?	
9	14	1	2	8	12	53	94	7	10	7.19	7.74	6.41	7.58	7.23	18	13	4	0	0.29	Inaccurate.
9	16	10	23	8	28	14	35	12	29	5.29	6.61	6.77	5.00	5.97	17	14	6	0	1.02	
7	11	16	22	9	14	4	8	4	7	5.55	7.80	7.93	3.87	6.29	16	15	5	2	0.50	Clearness inaccurate.
31	60	9	18	10	27	15	33	40	178	5.30	5.20	5.28	6.16	5.48	18	13	7	3	0.70	
4	13	17	34	13	31	16	39	6	19	6.20	6.83	5.09	5.50	5.91	18	13	5	3	....	
20	70	14	47	16	40	31	81	11	31	7.54	6.77	7.00	8.09	7.35	17	14	6	3	1.52	
15	34	8	26	18	31	17	36	29	71	4.87	3.77	3.54	5.48	4.44	13	18	6	0	0.57	
14	22	30	47	3	4	3	6	32	39	3.90	4.19	4.83	5.22	4.53	15	16	5	1	2.32	
7	17	10	28	18	46	6	9	26	52	5.32	5.77	5.12	6.38	4.65	18	13	6	0	2.88	
6	19	38	114	4	14	2	4	1	3	5.74	5.96	6.45	6.67	6.21	19	12	7	0	6.90	
20	42	33	53	6	10	2	7	5	13	3.74	6.29	6.64	5.90	5.64	19	12	9	0	2.57	
4	14	45	108	5	13	6	12	15	47	4.83	5.22	5.77	5.67	5.37	18	13	10	0	....	
11	36	4	6	47	114	8	9	18	69	5.29	5.30	5.90	6.25	5.69	19	12	8	0	5.00	

MONTH OF MAY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Martin Scott	57.48	70.00	76.19	60.06	65.92	88	42	22.1	24.9	4	12	1	6	3	5
San Antonio	66.45	73.18	78.78	71.81	72.55	90	51	17.4	21.6	4	19	19	72	8	28
Fort Brown	68.45	76.58	79.70	72.51	74.31	86	56	11.7	18.3	2	4	14	28	5	11
Ringgold Barracks	66.03	78.12	91.41	72.32	76.97	105	54	28.0	23.0	2	4	3	9	11	31
Fort McIntosh	64.83	79.77	88.29	73.80	76.42	99	48	22.6	28.4	12	15	16	22	10	13
Fort Duncan	64.17	73.51	88.37	74.91	75.24	98	43	22.8	32.2	9	27	7	17	31	82
Fort Inge	63.53	70.10	80.66	69.63	70.98	94	50	23.0	21.0	..	..	..	..	..	..
Fort Lincoln	60.20	68.60	83.20	63.40	68.85	90	45	21.2	23.8	26	33	1	1	1	1
Socorro	49.50	62.50	78.50	63.00	63.38	96	30	32.6	33.4	16	29	17	34	1	1
Albuquerque	45.33	63.10	72.54	63.10	61.02	86	28	25.0	33.0	29	64	5	12	28	81
Cebolletta	46.80	66.70	71.70	51.00	59.05	87	31	28.0	28.0	0	0	5	9	8	17
Las Vegas	44.50	68.90	63.70	47.10	51.77	88	27	36.2	24.8	14	35	9	29	7	19
Taos	38.20	54.80	66.80	46.20	51.50	81	24	29.5	27.5	13	14	3	5	28	57
San Diego	57.45	66.06	66.16	57.77	61.86	71	53	9.1	8.9	11	18	0	0	1	3
Monterey	51.38	58.64	61.70	51.65	55.84	69	46	13.2	9.8	14	21	2	3	0	0
San Francisco	52.23	58.22	57.30	53.10	55.21	66	50	10.8	5.2	0	0	0	0	0	0
Camp Far West	55.47	75.13	88.53	68.40	71.88	107	48	35.1	23.9	1	3	3	4	0	0
Fort Vancouver	54.66	59.38	70.23	56.28	60.19	80	46	19.8	14.2	5	6	1	2	5	5
Fort Steilacoom	46.10	58.30	66.90	51.20	55.60	74	38	18.4	17.6	46	64	28	50	0	0

MONTH OF MAY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
27	77	11	22	10	26	2	3	25	84	4.83	5.87	6.77	7.26	6.18	18	13	9	0	3.45	
30	97	12	27	37	118	3	9	9	38	9.90	9.33	9.57	6.66	8.86	23	8	7	0	3.22	
68	170	4	8	14	30	5	10	12	28	6.83	7.25	6.41	7.41	6.97	23	8	7	0	2.20	
71	227	7	16	1	2	0	0	7	21	5.87	5.06	6.29	5.35	5.64	20	11	7	0	4.55	
64	149	2	3	2	2	1	2	11	28	4.51	6.12	6.70	4.29	5.41	21	10	9	0	3.70	
31	69	27	48	6	11	2	5	1	4	5.03	6.96	7.29	7.38	6.67	22	9	5	0	1.00	
..	..	..	..	..	..	..	..	..	..	4.67	5.45	6.80	6.81	5.93	19	12	5	0	1.07	
42	53	20	31	2	2	6	8	18	26	2.00	3.00	4.00	3.00	3.00	15	16	5	0	2.50	Clearness inaccurate.
24	45	32	65	10	20	1	1	7	16	7.50	7.00	5.50	7.00	6.75	18	13	9	0	0.12	
12	39	25	63	11	28	6	20	6	18	7.00	6.61	4.90	6.09	6.15	22	9	6	0	0.21	
14	36	2	2	2	5	2	4	6	12	6.30	7.30	6.10	7.10	6.70	20	11	7	1	0.23	
17	37	16	37	8	19	1	2	3	6	6.50	8.30	8.00	4.00	6.70	16	15	6	2	....	Temp. in error at 9 [a. m.
0	0	0	0	14	32	59	117	5	8	3.80	4.10	3.30	2.60	3.45	11	20	2	2	2.40	
30	75	6	13	8	24	26	79	15	50	1.58	4.40	5.48	3.80	3.82	11	20	0	0	0.00?	
0	0	7	11	8	20	39	81	10	19	7.16	8.00	9.61	9.35	8.53	25	6	1	0	0.00	
0	0	0	0	0	0	6	29	114	402	6.25	6.24	7.14	6.19	6.46	18	12	0	0	0.00	
4	11	102	173	0	0	1	1	2	5	9.60	9.80	9.86	9.90	9.79	29	2	1	0	0.01	
3	4	20	34	16	29	46	73	16	32	7.73	8.26	9.06	7.73	8.20	23	8	2	0	0.40	
1	1	0	0	3	10	5	8	36	67	5.60	5.40	6.10	6.70	5.95	17	14	3	0	0.30	

NOTE.—At *Fort Preble*, *Watervliet*, *Fort Ontario*, *Carlisle Barracks*, *St. Louis Arsenal*, *Newport Barracks*, *Fort Mackinac*, from May, 1850, *Fort Ripley*, *and San Antonio*, the scale of notation of *clearness* is too high as used for a considerable period, and two or three of these are quite incorrect in this observation. At *Fort Sullivan* to July, 1850, *Plattsburg Barracks*, *Forts Barrancas*, *Towson*, *Brady*, *Leavenworth*, &c., a scale much too low is usually employed.

This note applies to most of the records at these posts in 1849, 1850, and 1851.

MONTH OF JUNE, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	48.17	54.40	67.00	54.25	55.95	87	42	21.1	13.9	5	14	26	51	0	0
Fort Preble	55.46	63.40	68.60	61.56	62.26	92	44	29.7	18.3	14	35	4	8	3	7
Fort Constitution	57.06	67.20	73.36	59.70	64.33	96	42	31.7	22.3	6	13	5	10	7	15
Fort Adams	58.83	67.57	70.80	62.97	65.04	82	46	17.0	19.0	2	4	10	36	9	25
Fort Trumbull	60.33	69.03	74.30	65.06	67.18	85	46	17.8	21.2	0	0	19	59	1	4
Fort Hamilton	63.10	68.30	75.70	68.50	68.90	87	51	18.1	17.9	9	19	8	16	10	22
Fort Columbus	61.70	69.60	76.90	66.33	68.63	88	50	19.4	18.6	9	20	9	16	2	5
West Point	61.00	69.87	76.37	66.73	63.49	88	51	24.5	12.5	26	41	4	5	1	2
Watervliet Arsenal	63.40	70.16	75.46	63.86	68.22	84	44	15.8	24.2	19	61	0	0	4	15
Plattsburg Barracks	57.16	65.12	74.16	65.13	65.39	94	48	28.6	17.4	2	5	3	3	8	9
Madison Barracks	58.33	68.50	75.66	69.13	67.90	85	46	17.1	21.9	8	13	4	5	12	15
Fort Ontario	60.90	67.90	71.93	63.13	65.96	86	44	20.0	22.0	0	0	23	47	0	0
Fort Niagara	59.00	70.40	76.00	65.20	67.65	86	45	18.4	22.6	5	9	14	33	8	16
Alleghany Arsenal	58.32	70.56	78.73	66.30	68.48	90	42	21.5	26.5	15	22	0	0	0	0
Carlisle Barracks	59.03	75.20	83.10	67.27	71.15	92	44	20.9	27.1	2	4	2	2	8	16
Fort Mifflin	61.90	72.50	83.36	68.10	71.46	94	52	22.5	19.5	6	12	3	6	5	10
Fort McHenry	67.43	77.66	81.76	71.83	74.67	92	52	17.3	22.7	9	24	14	38	17	41
Fort Monroe	68.13	72.53	78.80	72.90	73.09	91	51	17.9	22.1	20	32	14	31	0	0
Fort Moultrie	71.00	79.66	81.46	75.23	76.84	89	55	11.1	21.9	7	22	17	61	7	22
Oglethorpe Barracks	71.53	82.49	84.16	76.20	78.59	91	62	12.4	16.6	2	3	35	77	9	13
Fort Dallas	76.80	82.00	83.60	79.60	80.50	88	68	7.5	12.5	0	0	36	135	53	152
Fort Hamer	71.23	82.20	88.76	79.16	80.34	94	63	13.7	17.3	7	17	5	9	54	132
Fort Brooke	71.36	79.90	84.13	79.06	78.61	88	67	9.4	11.6	4	6	55	131	13	23
Mount Vernon Arsenal	69.63	78.46	83.23	76.26	76.90	92	58	15.1	18.9	1	1	14	29	7	12
New Orleans Barracks	67.76	82.39	82.83	72.51	76.12	93	58	16.9	18.1	15	17	10	18	16	20
Baton Rouge Barracks	73.33	83.14	84.45	73.43	78.59	94	69	15.4	9.6	5	10	5	7	20	39
Fort Towson	70.43	78.63	82.06	74.13	76.06	92	58	16.0	16.0	6	6	0	0	15	20
Fort Washita	68.86	74.43	82.60	72.60	74.62	92	58	17.4	16.6	1	2	10	32	20	53
Fort Smith	69.23	76.67	83.56	76.63	76.62	92	58	15.4	18.6	1	3	3	3	57	79
Fort Gibson	69.03	78.20	84.20	74.73	76.54	93	55	16.5	11.5	6	10	6	10	6	13
Fort Scott	65.16	76.17	81.28	71.26	73.47	91	51	17.5	22.5	6	6	10	12	17	19
Jefferson Barracks	69.36	77.93	84.25	72.90	76.11	92	50	15.9	26.1	4	10	0	0	9	17
St. Louis Arsenal	68.00	76.30	86.16	72.00	75.61	94	48	18.4	27.6	11	15	7	13	15	16
Newport Barracks	66.27	73.33	82.96	76.00	74.64	90	48	15.4	26.6	13	33	11	29	1	1
Detroit Barracks	57.06	75.43	79.43	66.60	69.63	87	39	17.4	30.6	5	9	13	22	12	20
Fort Gratiot	59.40	68.96	74.30	64.83	66.87	90	48	23.1	18.9	7	17	13	40	19	38
Fort Mackinac	52.10	64.73	68.77	59.80	61.30	80	38	18.7	23.3	39	88	19	36	7	12
Fort Howard	55.20	70.26	76.60	64.93	66.75	88	36	21.3	30.7	9	24	8	18	15	28
Fort Brady	52.21	64.27	73.20	60.90	62.64	82	44	19.4	18.6	1	2	0	0	8	25
Fort Ripley	52.40	68.00	74.73	59.93	63.76	85	35	21.2	28.8	19	31	4	10	5	8
Fort Snelling	64.93	74.83	78.13	64.26	70.51	88	35	17.5	35.5	24	26	6	16	11	18
Fort Leavenworth	65.10	73.33	79.86	71.46	72.44	87	55	14.6	17.4	3	4	8	9	4	6
Fort Kearney	60.83	70.70	78.56	62.73	68.20	91	49	22.8	19.2	4	9	16	29	7	18
Fort Worth	69.46	81.66	85.26	74.13	77.63	100	61	22.4	16.6	0	0	2	8	2	7
Fort Graham	71.20	80.45	86.96	76.75	78.84	97	59	18.2	19.8	0	0	8	11	16	24
Fort Gates	68.43	79.46	84.66	72.57	76.28	95	55	18.7	21.3	2	2	1	1	2	4
Fort Croghan	64.20	79.66	87.93	65.63	74.35	98	50	23.6	24.4	1	5	0	0	0	0

MONTH OF JUNE, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	27	2	4	56	108	3	5	15	28	2.26	3.15	3.22	2.25	2.72	10	20	4	0	6.10	
16	31	11	20	13	28	44	68	15	21	5.76	6.16	6.66	5.90	6.12	16	14	9	0	4.80	
11	22	41	75	5	8	14	25	28	63	3.76	5.60	6.06	2.96	4.60	17	13	10	0	2.73	
5	15	4	7	35	88	49	90	5	19	6.00	6.20	5.77	5.33	5.83	16	14	7	0	2.42	
6	18	7	20	76	168	0	0	10	30	4.73	6.60	5.60	6.70	5.91	17	13	8	0	5.69	
16	35	12	27	30	83	3	5	32	88	7.10	6.60	6.60	7.90	7.05	20	10	7	0	2.11	
6	16	21	40	30	41	10	17	17	32	7.16	6.80	5.70	7.23	6.72	21	9	8	0	3.07	
10	15	39	61	8	10	5	6	18	34	5.17	5.70	4.63	6.53	5.51	16	14	11	0	3.83	
0	0	35	136	19	60	29	110	11	34	8.23	7.20	7.13	6.40	7.24	19	11	11	0	1.91	Winds, &c., inaccurate.
13	15	44	50	23	32	16	22	9	13	3.24	4.20	4.50	3.23	3.79	14	16	6	0	2.58	
6	6	15	19	39	70	21	31	5	9	5.76	6.50	6.66	4.90	5.96	16	14	5	0	1.64	
16	22	0	0	65	112	0	0	15	46	....	....	....	....	....	17	13	4	0	2.03	
10	15	20	37	25	64	13	34	11	34	4.60	4.82	5.11	4.92	4.86	15	15	11	0	6.64	
3	5	7	15	25	70	2	8	10	31	3.30	5.60	6.36	5.93	5.30	16	14	11	0	2.62	
15	31	12	24	14	29	45	89	16	42	8.04	8.18	8.08	8.22	8.13	18	12	8	0	3.38	Clearness inaccurate.
12	20	22	39	34	68	17	35	5	8	5.60	5.03	5.83	5.91	5.59	17	13	6	0	1.65	
8	12	14	44	8	19	40	83	4	10	6.13	7.86	8.76	5.83	7.15	21	9	8	0	1.66	
1	1	3	5	22	63	39	61	19	36	5.73	6.23	6.00	6.30	6.06	21	9	7	0	1.12	
29	105	19	79	20	64	1	1	10	36	5.43	5.23	5.86	6.83	5.84	20	10	4	0	0.78	
26	63	3	4	3	6	4	10	6	16	6.86	5.43	5.53	6.76	6.45	20	10	4	0	1.20	
9	19	5	8	1	2	5	9	0	0	2.88	5.47	4.86	2.94	4.04	12	18	..	0	....	
11	29	1	1	1	1	9	36	0	0	1.03	2.13	3.56	2.60	2.33	10	20	6	0	....	
11	17	1	1	5	8	10	17	9	15	8.03	7.50	6.13	7.03	7.17	24	6	6	0	2.05	
32	75	13	25	31	57	9	20	10	23	6.36	5.36	3.43	6.90	5.51	18	12	8	0	2.01	
4	7	19	29	28	44	9	13	3	3	5.63	4.45	3.06	6.70	4.96	13	17	13	0	8.92	
23	34	29	39	18	23	3	4	7	11	6.00	6.00	4.50	6.43	5.73	17	13	10	0	9.01	
9	18	43	76	2	4	1	1	0	0	2.42	2.53	2.53	5.40	3.22	15	15	10	0	5.06	
19	55	46	110	18	59	0	0	0	0	3.60	3.30	4.53	5.16	4.15	14	16	9	0	5.67	
1	2	14	26	19	37	24	34	0	0	4.53	5.36	5.36	6.90	5.54	20	10	7	0	3.27	
15	36	33	74	11	27	2	3	7	13	4.76	3.67	4.50	6.06	4.75	14	16	9	0	4.58	
16	25	54	136	8	14	3	7	5	10	1.25	3.70	2.21	4.50	2.92	10	20	9	0	4.80	
5	11	73	192	10	29	18	34	4	10	5.16	5.60	5.80	7.16	5.93	17	13	9	0	1.52	
6	7	43	67	15	34	14	18	3	7	6.33	7.60	7.20	3.00	6.03	16	14	6	0	0.17	Clearness inaccurate.
0	0	41	56	12	38	28	70	3	12	....	....	....	....	....	17	13	7	0	5.82?	
2	2	5	7	31	62	42	66	5	10	5.83	6.23	5.93	6.33	6.08	19	11	10	0	2.65	Temp. inaccurate.
20	36	32	63	9	23	4	10	2	5	4.06	5.84	5.96	4.70	5.14	18	12	11	0	4.70	
8	23	23	47	2	2	3	9	9	22	5.43	7.80	9.46	3.60	6.57	16	14	9	0	1.68	
7	11	21	44	21	47	9	16	2	6	3.93	8.76	5.50	5.70	5.97	14	16	15	0	4.92	
34	78	10	17	6	14	35	79	20	64	5.29	5.12	6.30	6.23	5.74	19	11	7	0	2.92	
23	59	23	66	3	6	9	11	10	17	5.70	4.83	5.30	6.66	5.62	20	10	12	0	6.00	
20	49	21	64	11	18	4	14	9	10	4.50	4.80	4.50	4.80	4.65	16	14	11	0	4.62	
34	60	54	86	1	1	4	4	7	14	2.60	2.86	2.76	4.06	3.07	12	18	11	0	5.99	
21	45	15	32	29	61	4	7	8	18	3.43	3.90	4.80	4.80	4.23	13	17	15	0	9.93	
6	17	54	159	2	10	0	0	1	3	4.96	5.20	4.80	6.60	5.41	18	12	7	0	7.30	
15	24	56	142	13	32	2	2	0	0	3.10	3.80	4.80	3.60	3.82	12	18	8	0	4.83	
24	58	62	157	9	11	9	12	1	1	2.60	2.63	3.26	3.20	2.92	11	19	12	0	....	
34	116	22	37	54	159	0	0	1	2	4.40	4.53	4.73	5.40	4.76	16	14	11	0	5.60	

MONTH OF JUNE, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Martin Scott	66.16	72.96	85.13	69.53	73.45	96	58	22.5	15.5	2	2	5	9	4	9
San Antonio	74.54	81.87	87.72	79.30	80.61	96	70	15.4	10.6	0	0	23	64	10	32
Fort Brown	75.50	83.73	85.66	76.83	80.43	92	70	11.6	10.4	0	0	1	1	0	0
Ringgold Barracks	74.86	87.73	98.26	79.83	85.17	105	70	19.8	15.2	0	0	0	0	11	32
Fort McIntosh	73.80	86.70	91.86	80.50	82.23	100	69	17.8	13.2	0	0	6	8	22	37
Fort Duncan	71.95	80.48	90.61	80.11	80.78	98	65	17.2	15.8	4	8	14	41	28	55
Fort Inge	69.50	78.90	86.33	78.96	78.42	96	60	17.6	18.4	..	..	..	..	..	..
Fort Lincoln	70.90	77.80	87.40	71.00	76.77	95	60	18.2	16.8	1	1	2	2	8	10
Socorro	58.50	74.50	89.88	71.50	73.59	104	45	30.4	28.6	12	35	11	17	3	9
Albuquerque	54.01	72.00	81.00	76.04	70.76	91	45	20.2	25.8	20	42	12	33	18	49
Cebolleta	53.00	77.60	81.40	63.40	68.85	95	44	26.2	24.8	1	1	0	0	8	12
Las Vegas	52.60	78.50	75.80	49.80	64.18	95	38	30.8	26.2	8	12	3	7	7	13
Taos	49.00	63.33	78.28	62.20	63.20	84	50	20.8	13.2	7	10	1	3	8	17
San Diego	59.66	67.60	68.96	59.80	64.00	74	56	10.0	8.0	8	19	1	2	6	17
Monterey	51.43	59.93	62.26	53.26	56.72	68	47	11.3	9.7	4	4	0	0	0	0
San Francisco	53.90	59.10	62.20	54.90	57.20	70	49	12.8	8.2	6	20	0	0	0	0
Benicia	57.08	72.37	84.37	65.25	69.77	103	51	33.2	18.8	0	0	0	0	0	0
Fort Vancouver	52.85	63.53	71.45	57.45	61.32	88	44	26.7	17.3	8	12	13	22	11	20
Fort Steilacoom	53.30	62.00	71.23	57.90	61.11	84	46	22.9	15.1	35	53	18	36	2	5

MONTH OF JUNE, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
29	97	34	75	4	12	2	2	2	3	3.66	5.03	5.80	5.90	5.10	17	13	13	0	10.28	
36	105	9	29	30	78	0	0	9	29	8.54	9.03	9.00	5.69	8.06	18	12	13	0	9.63	Clearness inaccurate.
116	212	0	0	3	5	0	0	0	0	8.73	8.40	8.13	8.96	8.56	28	2	3	0	0.06	
85	236	5	15	9	37	0	0	0	0	4.30	4.93	5.00	5.40	4.91	16	14	9	0	2.76	
86	216	3	6	2	3	0	0	1	2	3.96	5.20	5.90	3.60	4.67	10	20	8	0	4.93	
27	56	26	58	2	4	1	2	0	0	4.03	4.96	6.70	6.80	5.62	16	14	8	0	5.51	
..	..	..	..	..	..	..	..	..	..	1.96	3.00	4.33	4.73	3.51	14	16	11	0	7.00	
68	108	32	50	4	4	1	1	3	3	1.50	3.50	4.50	3.50	3.25	11	19	10	0	....	
6	12	48	118	15	33	5	15	12	29	6.50	7.00	6.50	5.00	6.12	26	4	7	0	0.17	
12	35	26	70	14	46	7	25	5	14	5.66	6.03	3.27	4.30	4.82	17	13	4	0	0.18	
12	20	15	31	28	61	26	55	6	12	7.10	7.90	5.40	6.40	6.70	21	9	4	0	0.28	
6	13	23	60	5	13	10	18	7	14	8.20	9.00	8.40	5.60	7.80	25	5	6	0	....	Temp. in error at 9
0	0	1	4	9	12	82	166	9	16	6.10	6.00	5.20	4.50	5.45	22	8	3	0	0.80	[a. m.
23	58	7	15	10	16	28	70	16	51	0.43	3.50	6.90	4.20	3.78	13	17	2	0	0.68	
0	0	11	19	32	51	27	50	35	78	4.26	5.10	6.70	5.63	5.42	19	11	0	0	0.00	
0	0	0	0	4	15	52	223	55	249	4.17	5.12	7.50	6.27	5.77	22	8	1	0	0.01	
0	0	0	0	52	159	12	36	0	0	8.00	9.00	7.50	8.00	8.12	15	1	0	0	0.00	Last 16 days.
4	8	2	3	3	8	54	79	17	27	7.07	8.63	8.76	4.56	7.25	25	5	9	0	3.22	
9	25	3	9	28	83	7	12	19	45	5.50	5.10	5.20	5.20	5.25	18	12	6	0	0.40	

MONTH OF JULY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	56.12	63.58	66.77	60.29	61.69	80	50	18.3	11.7	5	7	16	31	2	2
Fort Preble	61.70	67.16	71.45	66.32	66.65	80	52	13.3	14.6	13	24	4	4	6	17
Fort Constitution	60.38	70.29	75.67	62.48	67.20	86	54	18.8	13.2	4	7	3	7	9	14
Fort Adams	68.03	73.77	77.48	71.26	72.63	84	60	11.4	12.6	9	30	10	36	3	5
Fort Trumbull	67.16	74.35	78.26	71.00	72.69	87	57	14.3	15.7	1	3	14	38	0	0
Fort Hamilton	70.70	73.00	76.30	73.50	73.32	94	64	20.7	9.3	7	15	19	39	16	40
Fort Columbus	69.26	75.38	82.90	72.71	75.06	94	62	15.0	13.0	5	11	8	13	9	21
West Point	67.13	73.71	79.86	71.45	73.03	92	60	19.0	13.0	17	43	2	4	2	5
Watervliet Arsenal	69.00	74.45	81.96	69.13	76.13	88	58	11.9	18.1	20	58	0	0	0	0
Plattsburg Barracks	62.14	69.24	76.26	68.25	68.97	90	49	21.0	20.0	6	8	11	16	12	14
Madison Barracks	64.64	72.77	80.54	70.58	72.13	91	49	18.9	23.1	8	11	13	16	14	17
Fort Ontario	66.48	70.77	75.38	68.54	70.29	90	56	19.7	14.3	0	0	28	64	0	0
Fort Niagara	65.74	74.35	78.58	70.13	72.19	88	55	15.8	17.2	20	48	11	23	10	17
Alleghany Arsenal	67.45	77.80	86.22	72.93	76.10	95	60	19.9	16.1	9	11	15	26	7	14
Carlisle Barracks	66.80	75.29	87.16	73.90	75.79	91	58	15.2	17.8	3	20	5	13	40	69
Fort Mifflin	69.19	78.25	88.12	72.76	77.18	98	56	20.8	21.2	11	27	16	38	14	26
Fort McHenry	72.74	79.12	85.29	77.06	78.55	89	68	10.4	10.6	2	2	27	77	7	13
Fort Monroe	75.25	76.48	84.61	77.51	78.46	94	68	15.5	10.5	0	0	0	0	40	117
Fort Moultrie	79.03	85.70	88.19	82.12	83.76	95	74	11.2	9.8	1	5	19	73	2	8
Oglethorpe Barracks	76.55	87.11	87.26	80.32	82.81	96	73	13.2	9.8	0	0	15	34	7	12
Fort Dallas	80.35	84.67	88.06	81.87	83.74	92	73	8.3	10.7	2	4	33	101	7	18
Key West	82.80	85.50	88.80	84.29	85.34	91	77	5.7	8.3	2	6	7	27	45	150
Fort Hamer	75.58	83.77	87.41	77.06	80.96	94	73	13.0	8.0	7	10	8	12	36	42
Fort Brooke	77.80	81.38	84.45	79.80	80.86	91	74	10.1	6.9	0	0	3	5	12	17
Mount Vernon Arsenal	74.12	80.96	84.87	79.63	79.89	92	67	12.1	12.9	17	37	10	25	4	5
New Orleans Barracks	76.74	84.08	88.85	80.50	82.54	95	70	12.5	12.5	21	27	3	5	12	16
Baton Rouge Barracks	78.88	88.03	93.31	79.14	84.81	97	74	12.2	10.8	1	2	1	2	4	6
Fort Towson	73.29	82.25	88.22	78.51	80.57	95	67	14.4	13.6	7	11	1	2	7	12
Fort Washita	72.64	82.77	89.96	78.67	81.01	97	66	16.0	15.0	1	1	13	35	14	25
Fort Gibson	72.16	81.09	91.32	79.42	81.00	100	68	19.0	13.0	3	5	11	17	6	16
Fort Scott	69.80	80.27	90.10	77.20	79.34	98	55	18.7	24.3	5	7	15	21	16	23
Jefferson Barracks	73.52	81.48	89.03	81.72	81.44	95	61	13.6	20.4	4	7	20	37	6	11
St. Louis Arsenal	71.13	78.06	89.19	77.13	78.88	102	62	23.1	16.9	21	33	8	11	21	24
Newport Barracks	73.16	79.10	87.68	78.42	79.59	98	63	18.4	16.6	14	44	10	26	6	16
Detroit Barracks	64.41	79.67	82.45	71.83	74.59	93	54	18.4	20.6	4	6	34	69	18	36
Fort Gratiot	63.25	73.16	79.22	69.38	71.25	94	48	22.7	23.3	6	13	17	49	41	70
Fort Mackinac	63.72	69.80	73.80	64.70	68.00	86	50	18.0	18.0	38	59	11	20	17	39
Fort Howard	61.19	74.58	79.19	68.64	70.87	91	49	20.1	21.9	2	7	10	24	11	22
Fort Brady	58.11	68.30	74.10	63.00	65.88	94	52	28.1	13.9	0	0	1	1	17	31
Fort Ripley	57.48	69.19	73.67	64.51	66.21	90	46	23.8	19.2	19	34	7	12	16	29
Fort Snelling	71.19	77.35	82.06	72.79	75.85	98	59	22.1	16.9	12	18	14	26	17	36
Fort Leavenworth	69.35	75.12	85.93	77.03	76.86	91	60	14.1	16.9	2	2	13	14	1	1
Fort Kearney	63.93	76.58	86.96	72.41	74.95	92	54	18.1	20.9	2	4	15	28	1	1
Fort Worth	70.25	86.61	92.12	78.06	81.76	104	66	22.3	15.7	0	0	1	4	10	29
Fort Graham	74.09	83.22	94.74	83.53	83.90	102	68	18.1	15.9	0	0	2	4	10	19
Fort Gates	70.67	84.19	92.48	75.90	80.80	101	61	20.2	19.8	2	2	1	1	9	17
Fort Croghan	71.00	79.52	90.10	77.87	79.62	98	64	18.4	15.6	1	3	11	31	18	43

MONTH OF JULY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	22	16	37	36	69	2	4	31	62	2.58	3.71	5.32	3.06	3.67	12	19	7	0	7.10	
12	27	3	8	39	97	28	46	11	14	5.51	5.74	5.93	5.35	5.63	15	16	5	0	2.90	
2	4	53	88	20	55	14	30	14	39	3.32	4.16	4.93	3.12	3.88	14	17	5	0	2.04	
7	25	14	39	42	94	31	54	6	21	4.97	5.38	5.80	5.13	5.32	18	13	8	0	4.01	
17	51	18	33	55	121	5	8	6	18	4.05	5.05	5.00	5.10	4.80	16	15	11	0	9.39?	
26	61	14	42	12	38	6	19	20	52	5.90	5.25	8.40	7.10	6.16	19	12	6	0	3.68	
12	33	24	64	27	65	13	28	1	2	5.87	5.61	6.16	5.26	5.72	19	12	6	0	3.92	
14	48	51	132	4	7	3	6	22	55	3.84	3.67	3.10	5.03	3.91	15	16	12	0	5.89	
0	0	39	127	22	70	25	72	18	67	5.35	6.13	5.45	4.74	5.47	18	13	13	0	5.27	
14	18	34	48	14	21	16	20	7	12	3.23	4.30	3.20	3.23	3.49	15	16	9	0	4.12	
7	13	17	36	27	53	24	38	3	6	4.64	4.38	5.58	5.29	4.97	17	14	12	0	7.57	
23	46	0	0	52	79	0	0	21	39	7.77	7.96	7.67	7.00	7.60	18	13	8	0	6.09	
12	22	23	49	26	74	12	26	5	14	4.22	3.96	4.42	5.19	4.45	14	17	14	0	6.37	
9	17	8	24	26	68	5	14	7	22	4.48	4.83	4.74	6.20	5.06	17	14	13	0	2.82	
10	18	13	27	12	26	34	78	3	5	7.18	7.29	7.60	7.29	7.34	17	14	9	0	8.90	Weather inaccurate
17	45	25	46	27	58	7	13	1	2	3.93	4.70	5.06	5.58	4.82	18	13	8	0	5.23	
18	42	6	12	24	71	24	52	14	45	5.54	7.45	7.64	5.12	6.21	22	9	5	0	3.10	
25	47	13	23	24	46	17	40	3	5	5.80	4.87	6.22	6.12	5.78	23	8	10	0	9.01	
22	97	30	116	33	113	5	9	8	35	4.96	5.67	5.32	5.67	5.41	18	13	8	0	2.32	Force of wind in excess.
8	22	4	4	33	77	9	23	9	20	5.48	5.09	2.90	4.09	4.39	15	16	14	0	14.80	
52	148	0	0	18	46	5	16	2	4	6.77	7.58	7.54	6.32	7.05	..	..	..	0	....	Clearness inaccurate
34	131	3	8	2	7	18	51	5	17	2.96	3.96	4.80	5.10	4.21	17	14	4	0	2.02	
20	23	12	15	13	21	12	16	10	23	5.29	5.29	2.58	3.64	4.20	16	15	15	0	....	
31	43	11	12	44	59	15	27	4	5	6.66	6.87	5.22	4.83	5.89	20	11	22	0	11.98	
28	64	8	15	8	15	8	20	33	75	5.22	4.74	2.83	5.50	4.57	15	16	14	0	6.44	
5	6	20	30	23	36	21	27	10	17	5.29	4.13	3.22	6.93	4.89	17	14	10	0	6.31	
12	15	44	63	33	47	20	35	8	13	7.53	8.04	7.67	7.17	7.60	19	12	8	0	4.28	
7	13	29	51	5	10	4	8	1	2	5.51	4.03	4.48	7.96	5.50	19	12	7	0	3.29	
19	36	29	48	41	104	4	9	0	0	5.64	5.74	5.77	7.58	6.18	21	10	6	0	3.30	
7	18	11	26	18	49	14	33	23	41	6.29	7.06	6.45	8.48	7.07	23	8	4	0	1.00	
4	6	37	60	21	52	8	15	7	10	4.20	4.15	4.27	6.23	4.71	22	9	4	0	0.27	
15	35	33	60	40	98	6	11	0	0	5.00	5.45	6.55	7.94	6.24	25	6	4	0	2.95	
1	1	22	30	14	25	13	34	5	6	6.58	5.39	4.45	2.26	4.67	22	9	8	0	3.08	
6	12	45	86	6	11	20	68	8	25	6.90	8.30	6.60	7.40	7.30	20	11	8	0	10.66?	Inaccurate.
1	1	3	5	16	34	40	75	2	2	3.67	6.03	5.54	6.90	5.54	21	10	11	0	2.85	
16	29	21	37	12	26	5	11	1	4	4.64	6.19	5.96	4.32	5.28	20	11	10	0	3.06	
5	11	14	25	25	51	3	9	4	6	6.35	8.35	9.38	3.41	6.87	15	16	15	0	5.05	
3	6	9	17	22	56	31	61	5	13	2.90	4.54	3.93	3.48	3.71	12	19	11	0	6.34	
37	110	4	10	4	11	20	40	25	83	3.16	4.60	5.11	6.10	4.74	15	16	11	0	8.15	
32	92	3	7	5	15	17	40	7	12	4.51	4.25	4.16	5.35	4.57	15	16	18	0	11.92	
28	70	20	55	5	5	11	23	10	14	3.70	3.40	3.06	5.30	3.86	15	16	13	0	6.15	Therm. protected?
18	24	52	77	7	10	5	9	17	20	5.54	5.16	5.38	7.06	5.79	20	11	4	0	1.63	
17	36	18	45	45	108	2	4	8	22	5.44	5.64	7.00	5.77	6.00	23	8	10	0	5.38	
10	20	47	149	4	15	0	0	1	3	7.55	7.35	7.74	9.25	7.97	27	4	1	0	0.50	
12	21	14	25	12	21	2	4	0	0	6.25	6.80	7.60	8.87	7.38	28	3	3	0	1.50	
12	18	54	131	6	12	5	6	3	3	5.45	5.16	5.80	7.35	5.94	21	10	6	0	....	
44	94	25	61	2	6	1	2	3	3	6.42	5.68	4.93	5.84	5.72	22	9	5	0	1.60	

MONTH OF JULY, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Martin Scott	68.93	75.03	86.35	72.38	75.67	89	64	13.3	11.7	1	1	1	1	9	22
San Antonio	78.03	85.29	93.19	82.51	84.75	98	73	13.3	11.7	3	3	11	28	24	38
Fort Brown	77.58	86.22	88.77	78.90	84.87	93	73	8.1	11.9	0	0	0	0	0	0
Ringgold Barracks	78.35	92.06	102.61	82.74	88.94	107	76	18.1	12.9	0	0	0	0	4	14
Fort McIntosh	76.51	92.25	99.80	85.80	86.09	107	74	20.9	22.1	0	0	5	7	26	40
Fort Duncan	74.11	83.88	94.87	82.91	83.44	101	70	17.5	13.5	0	0	5	14	52	119
Fort Inge	71.74	83.87	91.67	80.19	81.87	98	67	16.1	14.9	0	0	2	9	21	30
Fort Lincoln	73.20	85.30	88.70	79.70	81.47	98	68	16.5	13.5	1	2	0	0	3	3
Socorro	67.50	77.50	95.50	77.00	79.25	104	59	24.8	20.2	2	4	2	6	4	7
Albuquerque	62.61	77.43	88.23	75.23	75.90	93	56	17.1	19.9	28	67	8	17	6	12
Cebolletta	60.77	84.19	91.25	69.10	76.33	100	50	23.7	26.3	1	1	3	6	13	17
Las Vegas	58.80	87.40	87.60	57.40	67.93	97	52	29.1	25.9	8	17	9	22	7	15
Santa Fé	61.80	82.60	90.70	69.70	76.20	99	54	22.8	22.2	4	5	17	18	7	10
San Diego	63.06	71.38	72.25	62.90	67.39	78	60	10.6	7.4	12	20	1	1	3	5
San Luis Rey	68.07	72.04	77.06	65.40	70.64	81	55	10.4	15.6	0	0	5	6	0	0
Monterey	52.83	59.42	64.25	53.83	57.58	74	49	16.4	8.6	6	9	0	0	0	0
Benicia	57.21	66.00	82.24	64.50	67.50	94	54	26.5	13.5	0	0	0	0	0	0
Fort Vancouver	59.84	68.22	77.87	63.68	67.40	91	50	23.6	27.4	17	36	10	23	10	19
Dalles of Columbia	......	......	......	......	......	....	....	......	......	2	3	0	0	7	10
Fort Steilacoom	54.70	64.80	74.80	62.70	64.25	86	50	21.8	14.2	52	84	11	33	1	2

MONTH OF JULY, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
41	108	21	63	17	40	2	5	2	4	6.51	6.83	7.22	8.45	7.25	23	8	6	0	1.71	
35	80	30	50	13	28	0	0	3	7	7.90	8.35	9.06	7.80	8.28	31	0	5	0	3.10	
116	174	0	0	8	16	0	0	0	0	7.93	7.90	8.22	8.90	8.24	27	4	6	0	1.16	
104	322	2	2	4	10	0	0	0	0	5.77	5.96	5.74	7.77	6.31	24	7	4	0	0.17	
91	214	2	6	0	0	0	0	0	0	6.12	7.16	6.93	4.96	6.29	26	5	3	0	1.19	
26	51	28	59	2	4	0	0	0	0	6.09	6.96	8.35	8.38	7.45	26	5	6	0	2.85	
53	102	29	50	2	2	0	0	0	0	4.00	5.87	7.00	8.00	6.22	23	8	6	0	2.70	
27	48	82	126	11	16	0	0	0	0	3.20	4.40	4.90	5.90	4.60	18	13	4	0	....	
16	30	37	62	39	75	11	17	10	21	7.50	7.00	7.50	6.80	7.12	28	3	5	0	1.29	
11	28	42	114	8	21	8	23	5	17	5.60	5.70	3.50	4.60	4.85	14	17	7	0	1.26	
26	37	13	16	6	8	32	49	16	25	6.61	7.16	5.93	5.90	6.40	19	12	7	0	0.85	Temp. in error, at 9 a. m.?
5	11	20	36	11	20	14	23	2	3	8.20	8.90	8.70	6.70	8.12	20	11	6	0	....	Temp. inaccurate.
25	30	10	11	24	36	7	8	15	18	9.00	8.20	7.30	7.80	8.07	23	8	6	0	0.98	
17	35	9	16	11	27	27	72	21	51	0.87	6.03	7.41	6.77	5.27	23	8	0	0	0.00	
0	0	0	0	0	0	0	0	59	134	0.53	6.80	9.30	7.70	6.08	14	3	0	0	0.00	Last 17 days.
1	1	1	1	36	51	39	53	35	63	1.97	4.06	6.51	5.13	4.42	14	17	0	0	0.00	
0	0	0	0	124	480	0	0	0	0	7.28	9.40	9.23	9.14	8.76	28	3	0	0	0.00	
2	4	6	10	2	3	60	101	9	14	8.80	9.48	9.58	5.90	8.44	27	4	7	0	8.35?	
1	2	0	0	15	48	72	163	24	57	7.61	7.52	7.32	7.26	7.43	26	5	2	0	0.01	
3	3	3	7	12	24	10	24	23	46	3.80	3.70	6.00	8.40	5.98	17	14	4	0	0.20	

MONTH OF AUGUST, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	54.34	64.30	66.45	60.42	61.51	75	49	13.5	12.5	11	16	11	15	4	6
Fort Preble	59.45	65.61	69.90	64.48	64.86	81	52	16.1	12.9	30	62	6	11	2	4
Fort Constitution	58.48	68.06	74.06	61.06	65.41	86	50	20.6	15.4	20	50	1	1	11	24
Fort Adams	65.58	71.03	74.26	69.26	70.03	82	55	12.0	15.0	12	46	10	33	12	39
Fort Trumbull	63.40	70.40	74.90	68.40	69.27	83	54	13.7	15.3	13	39	23	57	1	2
Fort Hamilton	66.90	71.10	78.30	72.20	72.12	87	57	14.9	15.1	27	62	11	31	8	17
Fort Columbus	65.87	71.03	79.16	70.09	71.04	90	55	19.0	16.0	11	24	27	48	5	6
West Point	62.23	69.19	75.71	67.55	68.69	85	50	16.3	18.7	35	91	1	3	1	3
Watervliet Arsenal	62.77	68.90	73.67	65.22	67.64	84	50	16.4	17.6	32	113	0	0	0	0
Plattsburg Barracks	57.30	65.12	73.23	64.18	64.96	83	47	18.0	18.0	10	12	9	9	2	2
Madison Barracks	58.77	73.06	77.48	66.22	68.88	89	47	20.1	21.9	14	25	15	19	9	17
Fort Ontario	62.19	71.16	76.09	68.87	69.58	84	48	14.4	21.6	0	0	15	43	0	0
Fort Niagara	63.20	71.45	74.80	67.73	69.29	84	50	14.7	19.3	8	21	19	44	11	24
Alleghany Arsenal	63.70	73.32	82.93	69.19	72.28	88	52	15.7	20.3	14	29	9	21	4	6
Carlisle Barracks	63.00	73.70	80.20	69.13	71.58	90	48	18.4	23.6	6	14	6	11	27	55
Fort Mifflin	65.29	74.12	84.54	69.45	73.35	95	54	21.7	19.3	12	27	4	9	9	19
Fort McHenry	66.61	74.67	78.79	75.77	73.96	89	62	15.0	12.0	10	19	32	85	4	5
Fort Monroe	72.38	76.45	83.00	75.58	76.85	96	66	19.2	10.8	5	12	11	22	30	71
Fort Moultrie	79.00	85.00	87.29	81.93	83.31	94	73	10.7	10.3	3	5	21	123	6	27
Oglethorpe Barracks	77.26	84.42	87.62	82.61	83.15	95	72	11.9	11.1	1	1	15	30	7	24
Fort Dallas	80.77	85.45	89.41	82.16	84.45	95	77	10.5	7.5	2	2	44	147	11	41
Key West	82.03	85.29	87.36	84.45	84.78	90	80	5.2	4.8	3	3	17	58	42	150
Fort Hamer	79.20	85.96	89.45	79.96	83.64	95	73	11.4	10.6	2	2	9	16	39	51
Fort Brooke	78.74	82.96	84.93	80.32	81.74	90	75	8.3	6.7	3	5	6	8	18	35
Mount Vernon Arsenal	75.80	83.48	86.41	80.74	81.61	95	72	13.4	9.6	3	9	10	27	10	26
East Pascagoula	80.25	89.79	90.69	83.69	86.08	98	74	11.9	12.1	9	17	16	25	2	4
Baton Rouge Barracks	73.30	88.46	92.39	80.04	83.67	100	69	16.3	14.7	3	6	11	14	25	33
Fort Towson	74.19	83.87	91.35	80.54	82.49	99	63	16.5	19.5	9	17	2	2	16	22
Fort Washita	74.22	86.87	91.58	80.58	83.31	104	63	20.7	20.3	1	2	12	30	2	9
Fort Gibson	73.22	86.45	94.64	80.80	83.78	105	59	21.2	24.8	11	29	13	34	2	5
Fort Scott	70.17	82.19	93.18	79.40	81.24	104	56	22.8	25.2	17	34	8	11	11	20
Jefferson Barracks	74.03	80.48	88.85	77.38	80.18	96	62	15.8	18.2	0	0	0	0	30	77
St. Louis Arsenal	71.55	77.09	85.55	77.39	77.89	104	58	26.1	19.9	18	22	5	9	24	29
Newport Barracks	70.29	76.09	83.29	76.35	76.50	90	56	14.5	20.5	10	20	9	24	11	20
Detroit Barracks	62.64	75.41	79.38	69.32	71.69	91	47	19.3	24.7	5	9	16	27	12	26
Fort Gratiot	60.22	69.77	76.77	67.93	68.67	92	40	23.3	28.7	7	8	11	33	30	52
Fort Mackinac	62.70	70.64	72.03	63.64	67.25	83	54	15.8	13.2	36	68	17	44	13	42
Fort Brady	57.77	67.30	72.10	60.80	64.49	89	48	24.5	16.5	3	9	4	26	11	25
Fort Howard	59.16	71.51	75.41	66.06	68.03	89	45	21.0	23.0	10	45	14	37	6	14
Fort Ripley	57.06	70.51	78.41	65.38	67.84	90	42	22.2	25.8	23	56	3	6	8	9
Fort Snelling	68.83	75.80	79.74	71.22	73.90	90	52	16.1	21.9	22	48	6	13	18	26
Fort Leavenworth	69.74	78.70	86.83	76.43	77.93	100	53	22.1	24.9	8	9	14	18	2	2
Fort Kearney	63.03	74.29	84.74	69.93	73.00	100	47	27.0	26.0	5	13	32	76	11	22
Fort Worth	72.22	91.80	99.16	79.64	85.70	107	62	21.3	24.7	7	22	0	0	6	10
Fort Graham	74.06	85.09	97.80	83.35	85.07	104	64	18.9	21.1	0	0	0	0	6	9
Fort Gates	70.22	86.06	95.77	78.00	82.51	103	62	20.5	20.5	5	20	0	0	0	0
Fort Croghan	74.32	83.45	94.03	82.03	83.46	102	67	18.5	16.5	2	6	7	14	12	19

MONTH OF AUGUST, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	13	23	36	13	23	20	27	34	60	4.35	6.35	6.74	3.65	5.27	19	12	12	0	2.58	
10	16	5	7	12	29	34	56	25	48	5.74	6.19	5.48	5.90	5.83	22	9	6	0	3.35	
7	11	28	51	8	20	16	33	28	61	4.35	5.35	4.96	3.03	4.42	15	16	11	0	6.50	
12	33	2	5	26	49	29	64	21	85	5.29	6.13	4.97	4.81	5.30	18	13	8	0	3.65	
15	44	4	15	39	129	7	22	22	57	4.30	5.70	4.90	5.90	5.20	17	14	11	0	8.94	
5	12	8	25	20	59	11	24	34	90	6.30	6.10	5.70	7.30	6.35	20	11	9	0	6.16	
3	5	14	36	16	37	23	41	25	50	4.58	5.00	4.49	6.29	6.09	17	14	7	0	7.21	
5	12	29	60	10	25	2	3	31	74	4.29	4.19	4.29	5.71	4.62	15	16	11	0	5.13	
3	13	15	44	22	62	45	137	1	5	6.06	7.09	6.22	4.87	6.06	20	11	10	0	3.34	
8	10	22	36	19	24	17	19	23	39	4.23	4.25	3.29	4.24	4.00	17	14	6	0	1.38	
4	4	20	42	19	40	28	63	6	14	4.58	5.12	5.96	6.19	5.46	18	13	7	0	3.12	
29	56	0	0	49	72	0	0	28	57	8.03	8.45	8.55	8.21	8.31	..	..	3	0	1.25	Clearness inaccurate.
5	8	19	36	11	26	19	55	10	27	3.70	4.83	4.00	5.83	4.59	17	14	10	0	5.17	
8	14	5	11	23	48	12	33	10	19	1.77	3.58	4.00	4.96	3.58	16	15	10	0	1.27	
9	19	12	35	7	16	46	97	8	22	7.17	7.24	7.27	8.10	7.45	17	14	10	0	2.72	
19	41	20	30	22	34	30	56	6	8	4.48	5.35	4.80	5.51	5.04	16	15	10	0	6.84	
5	11	7	16	17	37	25	64	13	31	5.51	6.79	6.38	4.93	5.90	20	11	8	0	4.70	
16	40	2	4	19	48	22	54	16	35	5.32	4.87	4.32	5.19	4.92	19	12	13	0	3.27	
21	84	13	58	32	130	8	29	4	8	4.83	5.48	5.32	6.22	5.46	21	10	12	0	4.03	
10	20	10	23	16	33	11	26	4	12	6.74	5.90	4.42	5.71	5.69	19	12	11	0	12.67	
47	158	0	0	2	4	5	11	0	0	8.22	7.96	7.38	6.58	7.54	..	..	..	..	....	Inaccurate.
29	116	20	71	2	7	3	11	3	8	4.16	5.16	5.12	5.48	4.98	18	13	12	0	3.38	
11	28	4	4	12	32	17	32	9	20	6.58	4.87	2.70	5.83	5.00	18	13	15	0	....	
14	31	14	27	19	43	15	22	12	14	7.83	7.22	5.74	6.83	6.90	23	8	17	0	5.43	
41	85	5	8	4	8	17	29	30	72	6.25	6.19	3.35	6.90	5.67	21	10	9	0	5.13	
9	23	12	33	21	59	5	11	21	24	4.33	5.12	3.66	6.04	4.79	13	11	6	0	1.76	Last 24 days.
39	57	4	5	10	16	7	9	19	29	7.40	5.47	6.37	5.20	6.11	24	7	9	0	3.75	
2	5	27	46	3	4	11	18	1	2	6.87	4.19	4.70	7.22	5.74	23	8	8	0	4.39	
16	25	20	25	50	85	7	13	6	15	6.38	7.11	5.32	7.64	6.61	24	7	5	0	4.80	
9	27	12	23	25	52	12	21	14	26	6.06	7.03	6.29	7.58	6.74	24	7	4	0	3.00	
8	16	23	66	30	70	19	36	5	9	4.60	5.80	5.17	6.00	5.39	20	11	6	0	5.45	
16	39	30	67	18	47	20	51	7	10	5.09	5.32	5.59	6.29	5.57	21	10	6	0	5.20	
7	15	20	40	4	11	29	48	2	3	6.00	6.84	7.00	3.00	5.71	24	7	6	0	1.17	
8	16	29	58	14	41	23	74	6	23	5.80	6.90	6.50	6.00	6.30	23	8	9	0	12.70?	
2	4	6	15	9	19	65	107	8	12	4.51	4.83	4.54	5.80	4.92	17	14	9	0	3.56	
13	22	18	38	11	37	17	35	9	25	4.64	5.41	6.41	4.22	5.17	20	11	10	0	1.80	
3	6	6	15	6	13	11	21	26	58	6.64	7.38	7.83	3.18	6.26	17	14	11	0	4.10	Clearness inaccurate.
22	55	17	27	3	5	27	56	19	65	3.13	5.60	5.80	5.13	4.92	18	13	12	0	4.09	
7	21	4	15	29	57	18	44	9	28	3.29	3.87	5.06	5.33	4.39	18	13	12	0	6.94	
29	62	20	40	1	2	15	29	14	36	5.90	5.67	5.68	6.93	6.04	23	8	8	0	2.51	
24	42	20	28	6	9	4	13	14	26	4.30	4.80	4.20	6.20	4.87	17	14	11	0	2.97	
12	16	50	76	7	12	2	4	18	29	4.09	4.93	5.38	6.41	5.20	16	15	8	0	2.27	
11	15	7	16	15	32	9	18	14	36	4.08	4.58	5.77	6.12	5.14	21	10	6	0	1.66	
12	43	55	142	10	29	3	7	0	0	9.16	8.67	8.41	8.93	8.80	30	1	2	0	3.70	
16	38	15	31	2	4	2	5	2	7	5.40	7.60	8.12	8.30	7.35	29	2	3	0	3.95	
5	10	63	145	10	12	3	3	9	20	7.29	7.58	6.61	8.07	7.39	25	6	5	0	....	
32	76	37	82	11	20	7	14	6	14	5.80	6.84	5.74	7.29	6.42	25	6	4	0	0.69	

MONTH OF AUGUST, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Martin Scott......	69.51	82.32	85.22	78.41	78.86	96	64	17.1	14.9	1	1	0	0	1	2
San Antonio..........	76.80	85.40	94.50	86.80	85.88	101	71	15.1	14.9	3	3	5	7	23	31
Fort Brown............	77.45	89.06	91.64	80.90	84.76	98	75	13.2	9.8	0	0	3	8	0	0
Ringgold Barracks.....	76.80	92.80	102.71	83.93	89.06	105	75	16.0	14.0	1	4	2	9	3	12
Fort McIntosh.........	76.61	94.87	102.77	86.25	90.12	107	69	16.9	21.1	2	4	4	6	27	54
Fort Duncan..........	75.38	85.64	98.88	86.08	86.49	105	67	19.5	19.5	8	21	5	12	39	87
Fort Inge	71.93	84.54	96.38	82.54	83.60	101	63	17.4	20.6	1	1	2	3	32	76
Fort Lincoln	71.10	85.20	94.30	78.90	82.52	101	68	18.5	14.5	4	9	3	7	2	2
El Paso...............	80.64	89.42	94.93	83.55	87.14	101	71	13.9	16.1	9	15	16	32	19	24
Socorro...............	69.03	84.48	97.52	78.87	82.50	103	57	20.5	25.5	1	3	7	8	10	25
Albuquerque...........	61.90	75.00	87.81	73.03	74.44	94	52	19.6	22.4	29	62	12	29	9	31
Cebolletta.............	61.16	84.48	91.29	70.77	76.90	99	53	22.1	23.9	11	12	4	4	15	18
Las Vegas.............	58.93	87.36	87.16	58.58	73.01	97	52	24.0	21.0	8	14	7	12	5	7
Santa Fé..............	58.70	85.90	90.30	66.10	75.25	100	49	24.8	26.2	3	5	11	20	13	22
San Diego.............	66.12	78.45	83.06	70.12	74.49	97	63	22.5	11.5	9	14	3	5	4	7
San Luis Rey..........	67.16	80.45	82.16	65.06	73.71	96	64	22.3	9.7	0	0	0	0	6	17
Monterey.............	52.64	59.19	64.12	54.83	57.70	74	50	16.3	7.7	18	21	0	0	0	0
Benicia	56.17	65.30	81.29	64.20	66.74	95	52	28.3	14.7	0	0	0	0	0	0
Astoria................	54.07	66.46	70.25	58.09	62.22	75	50	12.8	12.2	3	4	0	0	7	8
Fort Vancouver........	56.80	68.30	77.40	64.10	66.65	90	50	23.4	16.6	4	8	3	3	3	4
Dalles of Columbia.....	......	......	......	......	......	....	....	......	......	0	0	0	0	9	11
Fort Steilacoom	51.30	63.80	76.30	62.20	63.40	84	44	20.6	19.4	53	65	23	38	1	4

MONTH OF AUGUST, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
51	90	55	86	0	0	0	0	0	0	8.25	8.58	8.54	9.03	8.60	27	4	1	0	0.37	
27	51	32	51	17	23	8	11	4	9	7.30	8.40	8.60	8.00	8.07	27	4	2	0	0.17	Clearness inaccurate.
120	211	0	0	1	2	0	0	0	0	8.93	8.19	8.51	9.79	8.86	31	0	1	0	0.01	
103	314	6	20	0	0	0	0	1	4	8.90	7.29	5.67	9.06	7.73	30	1	3	0	0.11	
85	209	1	2	3	4	0	0	1	1	6.83	7.83	7.29	4.87	6.70	31	0	1	0	0.07	
30	75	35	84	0	0	0	0	0	0	7.87	8.03	7.77	9.16	8.21	29	2	1	0	0.60	
59	130	16	29	0	0	0	0	0	0	5.38	7.49	7.80	8.90	7.39	26	5	2	0	3.19	
32	55	37	57	42	71	0	0	3	5	2.70	5.90	6.90	6.00	5.37	24	7	1	0	....	
31	46	10	11	20	32	5	9	3	5	7.00	8.00	7.00	7.20	7.30	29	2	3	0	0.70	
25	43	45	65	19	35	4	7	5	12	6.50	7.00	5.00	7.00	6.38	28	3	8	0	0.54	
15	40	35	84	6	22	5	20	4	13	5.64	6.00	4.13	5.12	5.22	19	12	3	0	0.45	
17	21	7	7	7	13	15	26	26	47	7.22	7.54	5.93	6.54	6.81	25	6	5	0	0.26	
3	6	11	15	15	26	13	22	4	6	9.25	9.25	8.70	7.77	8.72	28	3	5	0	....	Temp. inaccurate.
31	38	4	5	20	28	18	24	13	18	9.50	8.30	7.30	8.30	8.35	28	3	6	0	0.92	
5	9	7	18	26	80	20	44	17	39	2.80	8.32	8.16	8.19	6.87	28	3	0	0	0.00	
0	0	0	0	0	0	0	0	116	353	3.70	7.90	8.90	8.90	7.35	30	1	0	0	0.00	
0	0	0	0	11	19	32	49	62	92	1.25	4.12	6.22	5.29	4.22	16	15	0	0	0.00	
0	0	0	0	124	343	0	0	0	0	7.40	8.17	9.12	9.17	8.46	29	2	0	0	0.00	
1	1	18	28	14	27	57	126	8	15	2.44	3.21	5.96	5.03	4.16	18	13	0	0	0.00	
2	4	0	0	10	16	91	158	9	16	8.70	9.40	9.50	6.30	8.47	28	3	0	0	0.00	
0	0	0	0	0	0	104	211	7	21	7.42	8.55	8.16	8.51	8.16	30	1	0	0	0.00	
6	6	0	0	1	1	2	2	35	56	1.40	3.30	5.80	5.70	4.05	17	14	0	0	0.00	

MONTH OF SEPTEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	53.13	60.56	61.76	55.76	57.80	75	40	17.2	17.8	2	3	11	20	6	8
Fort Preble	53.40	59.63	62.86	57.70	58.40	72	42	13.6	16.4	10	19	3	7	4	9
Fort Constitution	52.06	60.10	65.96	55.80	58.48	76	38	17.5	20.5	16	39	7	21	7	13
Fort Adams	59.50	63.70	67.73	63.63	63.64	78	46	14.4	17.6	9	39	12	50	12	25
Fort Trumbull	57.20	63.10	69.20	61.60	62.77	77	41	14.2	21.8	9	32	23	89	2	8
Fort Hamilton	61.40	65.20	73.40	66.20	66.55	83	47	16.5	19.5	8	20	7	15	14	35
Fort Columbus	59.86	64.86	71.36	61.20	64.32	82	44	17.7	20.3	11	25	5	11	20	46
West Point	56.03	62.33	68.00	60.33	61.67	80	46	18.3	15.7	36	75	3	5	1	2
Watervliet Arsenal	54.86	59.46	65.96	56.50	59.20	80	46	20.8	13.2	17	72	0	0	0	0
Plattsburg Barracks	52.10	59.00	67.20	57.23	58.88	79	39	20.1	19.9	2	4	0	0	0	0
Madison Barracks	52.86	60.60	68.03	58.76	60.06	83	36	23.0	24.0	4	6	12	19	5	5
Fort Ontario	54.13	61.83	67.63	59.80	60.85	87	37	26.1	23.9	0	0	12	25	0	0
Fort Niagara	55.50	58.60	66.70	56.48	59.32	79	40	19.7	19.3	8	24	10	24	8	15
Alleghany Arsenal	54.20	63.16	72.63	59.26	62.31	80	41	17.7	21.3	13	24	12	21	0	0
Carlisle Barracks	52.17	64.13	72.14	60.13	62.14	80	40	17.9	22.1	6	10	3	6	15	26
Fort Mifflin	59.23	68.56	80.73	63.70	68.05	93	44	15.0	24.0	16	25	8	19	14	22
Fort McHenry	63.83	67.96	72.56	67.16	67.88	82	52	14.1	15.9	13	44	32	75	8	11
Fort Monroe	68.50	71.30	75.73	70.27	71.45	86	56	14.5	15.5	7	17	26	74	32	86
Fort Moultrie	73.10	78.90	82.76	77.50	77.81	91	60	13.2	17.8	18	64	24	100	2	6
Oglethorpe Barracks	70.93	78.63	83.66	75.80	77.25	90	58	12.8	19.2	3	7	27	59	7	16
Fort Dallas	79.56	83.56	88.84	78.60	82.64	93	72	10.4	10.6	6	13	54	149	0	0
Key West	80.33	83.36	86.33	82.60	83.15	89	77	5.9	6.1	15	63	28	99	3	12
Fort Hamer	74.03	86.40	90.30	78.23	82.24	97	71	14.8	11.2	7	18	13	28	48	80
Fort Brooke	77.36	82.53	86.40	79.96	81.56	91	73	9.4	8.5	4	6	48	96	10	20
Mount Vernon Arsenal	70.26	77.76	86.66	78.65	78.33	92	65	13.7	13.3	16	37	43	106	12	35
East Pascagoula	74.62	85.55	91.48	82.13	83.44	100	70	16.5	13.5	26	37	32	57	8	19
Baton Rouge Barracks	68.80	81.35	91.80	72.33	78.57	97	62	18.4	16.6	24	80	18	25	6	6
Fort Towson	65.83	75.56	85.56	74.16	75.28	91	56	15.7	19.3	12	22	2	4	15	25
Fort Washita	66.43	79.33	88.20	74.20	77.04	96	56	19.0	21.0	6	10	27	48	12	22
Fort Gibson	67.46	76.80	86.33	71.30	75.45	94	50	19.5	25.5	17	37	30	60	4	13
Fort Scott	62.30	73.60	82.40	68.23	71.63	96	49	24.4	22.6	11	14	14	19	16	18
Jefferson Barracks	64.50	70.03	76.33	67.43	69.57	90	54	20.4	15.6	8	20	2	5	20	47
St. Louis Arsenal	59.26	68.43	76.10	65.46	67.31	88	46	20.7	21.3	29	34	6	6	11	13
Newport Barracks	60.27	65.26	75.00	66.96	66.87	90	48	23.1	18.9	48	103	5	11	9	15
Detroit Barracks	50.40	66.06	68.56	57.53	60.64	86	35	25.4	25.6	7	8	18	33	7	14
Fort Gratiot	48.80	59.23	65.93	55.96	57.48	81	35	23.5	22.5	10	21	15	33	17	29
Fort Mackinac	53.22	59.80	64.40	58.23	58.91	69	42	10.1	16.9	7	17	8	25	17	42
Fort Brady	49.16	56.15	60.40	52.13	54.46	73	36	18.5	18.5	7	19	0	0	20	50
Fort Howard	48.63	56.56	65.03	55.03	56.31	77	34	20.7	22.3	4	12	6	14	7	18
Fort Ripley	44.40	57.30	64.93	51.76	54.60	78	22	23.4	32.6	19	30	8	18	4	7
Fort Snelling	54.40	61.46	67.20	61.16	61.06	80	47	18.9	14.1	8	16	8	17	5	6
Fort Leavenworth	60.33	66.70	77.26	66.90	67.80	91	49	23.2	18.8	17	17	18	25	5	8
Fort Kearney	51.93	64.43	77.60	61.43	63.85	93	40	29.2	23.8	3	9	30	73	8	9
Fort Worth	65.33	83.83	95.13	74.46	79.69	103	56	23.3	23.7	14	17	14	16	7	10
Fort Graham	66.73	78.56	92.43	76.00	78.43	98	58	19.6	20.4	0	0	4	8	9	11
Fort Gates	64.90	81.50	92.90	73.76	78.26	102	54	23.7	24.3	5	9	2	6	1	2
Fort Croghan	69.30	81.63	93.30	77.76	80.50	101	60	20.5	20.5	4	9	5	11	6	12

MONTH OF SEPTEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	8	23	38	34	62	14	23	18	26	5.16	7.10	7.00	3.23	5.62	22	8	5	0	4.80	
9	17	8	19	18	44	35	56	26	49	5.10	5.73	5.33	6.26	5.61	19	11	5	0	5.95	
4	9	41	75	11	22	8	20	26	69	4.26	5.03	5.06	4.93	4.82	16	14	7	0	6.68	
23	52	3	3	4	14	12	68	36	127	5.90	5.30	4.77	5.20	5.29	17	13	7	0	5.23	
10	35	16	65	22	70	3	11	33	106	4.40	5.10	5.00	5.20	4.92	15	15	7	0	12.95 ?	
10	21	13	26	17	40	6	19	42	140	6.20	6.00	6.10	7.30	6.40	21	9	5	0	4.20	
13	23	12	26	14	28	17	33	22	64	5.00	4.56	4.70	6.13	5.10	17	13	7	0	4.71	
10	21	37	91	2	6	1	3	26	80	3.33	5.40	4.44	5.77	4.74	16	14	9	0	8.14	
0	0	25	92	16	56	40	150	14	47	6.76	7.60	7.16	5.90	6.86	20	10	8	0	4.23	
7	10	39	54	20	29	32	42	17	31	5.70	5.50	4.26	4.21	4.92	18	12	8	0	4.56	
1	2	27	60	11	26	37	75	12	30	4.86	5.20	5.66	5.66	5.35	19	11	8	0	4.75	
33	65	0	0	36	53	0	0	36	109	....	....	....	....	....	18	12	4	0	2.40	
2	5	25	45	33	89	12	26	16	66	3.43	4.23	4.40	5.73	4.45	13	17	7	0	7.25	
2	3	10	22	13	42	6	21	13	28	1.36	5.70	5.83	6.53	4.86	17	13	8	0	3.62	
12	24	12	35	13	23	39	89	14	36	....	....	....	....	....	18	12	7	0	5.65	
17	35	11	17	11	26	20	51	20	44	4.93	5.03	5.33	6.13	5.35	19	11	9	0	8.45	
5	11	8	15	13	36	5	8	15	44	5.06	6.56	7.00	5.53	6.04	21	9	8	0	4.70	Therm. protected.
12	25	3	6	14	30	4	10	17	40	4.22	4.17	4.20	6.12	4.68	17	13	6	0	2.31	
27	93	4	17	11	38	2	3	31	100	5.43	5.70	5.23	7.53	5.97	21	9	9	0	2.68	
12	26	1	1	8	10	16	24	5	6	5.33	3.43	5.27	6.53	5.19	20	10	10	0	3.37	
22	64	14	26	4	9	11	23	2	4	8.00	7.56	7.43	6.80	7.45	..	..	..	0	....	Clearness inaccurate.
13	34	2	5	25	80	2	7	10	38	3.80	4.73	4.60	3.53	4.17	17	13	14	0	3.93	
8	11	0	0	3	4	6	10	5	14	8.54	8.77	7.24	8.44	8.25	..	..	7	0	....	Weather inaccurate.
5	11	1	1	9	17	3	6	18	29	7.73	7.83	6.46	8.06	7.52	27	3	6	0	2.71	
22	44	0	0	0	0	1	2	21	53	7.23	7.90	5.83	8.13	7.27	25	5	1	0	0.15	
9	20	17	40	16	49	3	5	3	3	6.86	7.73	7.46	7.93	7.50	25	5	2	0	1.03	
3	4	0	0	19	32	15	22	23	36	6.23	8.95	8.60	6.84	7.66	26	4	4	0	3.58	
5	8	29	50	2	5	3	5	1	2	7.56	7.30	8.00	9.26	8.03	25	5	3	0	2.66	
14	32	15	24	28	47	7	13	3	6	7.03	7.80	7.86	9.23	7.98	26	4	3	0	2.30	
8	22	10	20	21	46	5	11	18	28	5.96	6.73	7.66	9.06	7.35	27	3	2	0	0.35	
17	34	39	115	16	41	2	3	3	4	4.80	5.12	6.20	7.20	5.83	21	9	5	0	0.52	
1	3	29	75	9	21	40	98	4	9	4.06	4.53	5.06	4.23	4.47	17	13	8	0	2.75	
1	1	17	30	5	7	24	41	5	7	7.46	7.40	7.53	2.00	6.10	25	6	6	0	2.20	
0	0	22	39	5	16	17	42	7	24	4.90	7.90	7.10	7.30	6.80	23	7	4	0	3.62 ?	
3	3	0	0	22	68	50	81	9	18	5.40	5.70	5.83	6.86	5.95	22	8	6	0	2.11	
11	25	22	59	17	49	18	42	4	9	4.20	5.73	6.13	5.80	5.46	19	11	9	0	1.73	
7	18	6	15	25	78	40	119	6	15	7.03	8.16	9.13	2.80	6.78	15	15	12	0	5.52	Clearness inaccurate
20	37	13	41	11	35	7	34	24	90	3.13	2.24	2.25	3.10	2.68	10	20	17	0	4.90	
3	7	10	28	18	43	40	90	3	9	3.93	4.46	3.40	3.83	3.91	13	17	10	0	2.69	
19	40	19	35	12	26	21	44	13	34	6.86	6.76	5.30	6.86	6.45	23	7	8	0	1.77	
14	24	27	52	22	52	17	41	15	34	7.30	6.90	6.50	6.40	6.78	21	9	8	0	1.82	Therm. protected ?
8	18	37	68	6	8	4	4	7	9	3.90	4.03	5.20	5.46	4.65	15	15	5	0	0.72	
6	23	1	1	16	35	10	10	28	41	4.83	5.13	6.18	5.73	5.47	18	12	7	0	0.43	
5	8	39	111	7	21	3	5	1	3	9.63	9.66	9.43	9.56	9.57	28	2	2	0	0.51	
53	81	24	38	8	13	12	19	6	6	2.70	7.70	8.70	8.60	6.92	27	3	2	0	0.60	
10	18	42	89	4	6	3	4	5	13	8.96	8.46	8.56	9.56	8.88	28	2	3	0	....	
27	62	26	71	9	20	10	13	6	7	8.80	9.03	8.30	9.63	8.94	29	1	1	0	0.45	

MONTH OF SEPTEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Martin Scott	63.43	71.26	84.06	73.46	73.55	90	56	16.5	17.5	1	3	11	24	4	6
San Antonio	73.40	82.10	96.40	80.33	83.06	100	66	16.9	17.1	7	7	20	28	19	27
Fort Brown	75.06	90.80	90.53	82.56	84.74	96	71	11.3	13.7	0	0	28	65	4	6
Ringgold Barracks	74.60	87.33	91.73	78.66	83.08	101	68	17.9	15.1	0	0	8	20	14	43
Fort McIntosh	71.93	91.33	99.46	83.83	86.64	106	62	19.4	24.6	2	4	10	16	25	39
Fort Duncan	70.43	82.93	97.65	86.50	84.38	104	61	19.6	23.4	4	5	14	32	43	88
Fort Inge	69.50	85.20	95.60	77.36	81.91	101	58	19.1	23.9	0	0	3	9	11	22
Fort Lincoln	72.10	81.20	93.20	81.12	81.65	98	58	16.3	23.7	3	3	0	0	0	0
El Paso	78.03	89.00	93.03	80.80	85.22	98	74	12.8	11.2	12	16	1	4	11	20
Socorro	60.29	72.20	91.80	70.16	73.61	99	53	25.4	20.6	6	9	2	3	9	9
Albuquerque	53.90	68.96	82.03	67.40	68.07	87	48	18.9	20.1	47	94	11	24	3	8
Cebolletta	52.10	78.76	83.70	66.66	70.31	90	50	19.7	20.3	9	10	4	4	3	3
Las Vegas	54.70	76.76	78.00	56.40	66.47	89	49	22.5	17.5	7	12	4	9	12	17
San Diego	62.20	75.70	81.33	66.53	71.44	101	51	29.6	20.4	3	4	5	12	15	20
San Luis Rey	64.43	80.00	80.83	68.76	73.50	104	52	30.5	21.5	0	0	18	66	0	0
Monterey	53.30	62.08	65.86	57.00	59.56	94	43	34.4	16.5	11	15	2	3	0	0
Benicia	56.48	65.97	77.57	60.00	65.00	97	52	32.0	13.0	0	0	0	0	0	0
Astoria	52.50	60.36	68.80	55.88	59.38	84	44	24.6	15.4	0	0	5	6	22	34
Columbia Barracks	50.64	61.23	72.62	62.00	61.62	90	40	28.4	21.6	6	11	3	6	5	10
Dalles of Columbia	43.43	55.00	70.71	60.57	57.43	82	40	24.6	17.4	1	2	2	3	7	14
Fort Steilacoom	45.90	56.40	69.40	54.40	56.52	84	40	27.5	16.5	15	23	20	27	14	25

MONTH OF SEPTEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
25	58	21	47	22	54	0	0	2	2	7.06	8.63	9.30	9.36	8.59	28	2	3	0	1.18	
28	45	30	45	6	8	0	0	3	3	7.40	7.90	8.70	8.00	8.00	27	3	2	0	0.39	
85	157	1	3	1	1	0	0	0	0	8.40	8.40	8.23	9.70	8.68	29	1	5	0	0.25	
57	161	18	53	1	4	0	0	0	0	8.53	7.50	6.43	9.10	7.89	29	1	2	0	0.08	
71	150	2	3	3	6	0	0	3	7	5.56	7.03	6.86	4.86	6.08	28	2	1	0	0.00	
19	48	32	72	1	2	0	0	0	0	7.03	8.63	8.76	9.60	8.50	29	1	1	0	0.10	
42	91	10	13	17	36	3	7	4	7	8.20	8.53	8.83	8.40	8.49	27	3	2	0	1.50	
21	40	47	73	29	49	8	10	8	12	6.17	8.20	7.18	7.90	7.36	25	5	2	0	2.80	
37	61	7	13	20	38	5	14	4	12	8.33	8.53	8.00	8.00	8.22	29	1	1	0	0.05	
6	6	11	13	20	24	31	34	24	33	6.23	7.00	7.06	5.20	6.37	30	0	4	0	0.24	
6	16	29	67	4	13	5	16	3	8	6.20	7.16	5.07	5.50	5.98	22	8	5	0	0.51	
12	13	9	15	4	4	25	46	42	57	7.93	8.46	6.10	7.30	7.45	25	5	8	0	1.37	Temp. in error at 9
4	5	13	17	7	10	7	11	3	8	6.76	8.76	8.76	6.83	7.78	26	4	0	0	0.00	Inaccurate. [a. m.?
9	14	13	15	29	69	13	27	16	37	4.20	7.06	7.50	6.30	6.26	20	10	0	0	0.00	
0	0	0	0	0	0	0	0	102	361	4.10	7.50	8.40	7.20	6.80	25	5	1	0	0.02	
0	0	6	14	42	86	32	45	23	43	2.63	4.16	6.00	4.60	4.35	15	15	2	0	0.02	
0	0	0	0	120	268	0	0	0	0	4.47	5.83	7.11	7.27	6.17	20	10	2	0	0.01	
1	1	1	2	57	83	35	74	0	0	1.73	2.20	4.40	4.83	3.29	11	19	7	0	1.80	
7	18	2	3	1	2	89	144	4	10	6.23	8.90	9.49	5.63	7.56	18	12	4	0	0.98	Clearness inaccurate.
0	0	0	0	7	8	63	147	4	10	6.00	6.90	7.80	8.00	7.17	21	9	3	0	0.09	
8	9	2	4	14	29	2	3	21	37	1.80	2.80	4.00	5.60	3.55	11	19	4	0	1.20	

MONTH OF OCTOBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	46.22	51.48	54.93	49.16	50.45	65	32	14.5	18.5	4	7	2	2	6	9
Fort Preble	45.45	52.00	54.32	49.32	50.27	64	28	13.7	22.3	13	38	3	7	2	4
Fort Constitution	44.25	51.38	56.74	47.70	50.02	66	26	16.0	24.0	15	42	3	4	3	6
Fort Adams	50.93	55.39	60.03	55.61	55.49	67	36	11.5	19.5	0	0	2	9	12	30
Fort Trumbull	48.10	55.20	62.40	53.40	54.78	68	31	13.2	23.8	5	8	6	10	0	0
Fort Hamilton	50.80	53.40	63.10	55.40	55.72	73	38	17.3	17.7	2	4	5	11	8	16
Fort Columbus	49.13	53.29	59.61	53.10	53.78	71	34	17.2	19.8	12	18	1	2	5	11
West Point	45.29	51.84	58.74	51.77	51.91	70	29	18.1	22.9	30	81	2	2	0	0
Watervliet Arsenal	42.00	49.32	55.29	45.61	48.05	68	26	20.0	22.0	5	15	0	0	0	0
Plattsburg Barracks	40.28	46.11	53.15	47.90	46.86	66	31	19.1	15.9	10	16	8	11	0	0
Madison Barracks	41.48	48.32	55.00	47.29	48.02	71	32	23.0	16.0	8	25	8	22	11	16
Fort Ontario	43.09	48.80	54.16	47.54	48.40	70	30	21.6	18.4	0	0	12	46	0	0
Fort Niagara	45.22	50.84	53.61	48.03	49.43	68	32	18.6	17.4	19	89	5	14	6	6
Alleghany Arsenal	43.00	49.87	57.58	46.87	49.33	75	30	25.7	19.3	0	0	10	22	4	6
Carlisle Barracks	41.11	50.21	61.20	48.27	50.20	74	28	23.8	22.2	6	18	3	6	17	33
Fort Mifflin	47.13	56.65	67.48	52.97	56.06	82	38	25.9	18.1	4	4	5	6	4	9
Fort McHenry	53.70	57.87	63.22	58.12	58.23	70	46	11.8	12.2	19	60	17	33	8	12
Fort Monroe	55.26	58.25	67.50	61.60	60.65	78	44	17.4	16.6	4	10	15	32	13	27
Fort Moultrie	59.87	66.51	72.93	65.83	66.28	80	43	13.7	23.3	22	89	38	149	1	1
Oglethorpe Barracks	57.09	66.61	73.58	65.06	65.58	85	40	19.4	25.6	3	4	15	20	17	41
Fort Dallas	72.80	78.51	82.61	74.74	77.17	87	55	9.8	22.2	12	31	68	234	0	0
Key West	75.51	77.45	79.22	77.45	77.41	88	65	10.6	12.4	33	116	51	175	1	3
Fort Brooke	67.16	72.51	77.12	71.29	72.02	83	60	11.0	12.0	17	28	55	90	35	75
Mount Vernon Arsenal	58.16	64.29	78.12	67.29	66.96	88	39	21.0	28.0	11	33	36	95	12	27
New Orleans Barracks	57.29	67.74	77.58	63.02	66.41	90	42	33.6	24.4	24	42	9	16	15	19
Baton Rouge Barracks	54.30	66.25	78.90	62.43	65.47	91	32	25.5	33.5	11	22	21	38	22	39
Fort Towson	54.74	62.22	73.80	61.74	63.12	86	32	22.9	31.1	21	44	2	4	24	53
Fort Washita	54.83	67.00	77.09	63.22	65.53	89	30	23.5	35.5	13	22	14	31	22	53
Fort Gibson	52.13	63.19	73.64	60.96	62.48	88	28	25.5	34.5	31	92	13	40	4	15
Fort Scott	49.10	58.21	69.21	56.30	58.20	88	24	29.8	34.2	26	48	5	7	6	9
Jefferson Barracks	51.00	55.51	65.35	57.90	57.44	79	29	21.6	28.4	5	14	8	16	1	3
St. Louis Arsenal	47.00	53.20	64.00	52.39	54.15	78	28	23.9	26.1	27	48	2	3	5	6
Newport Barracks	47.35	51.74	60.71	57.80	54.40	78	34	23.6	20.4	49	105	1	2	6	10
Detroit Barracks	40.32	52.35	58.90	46.77	49.58	74	25	24.4	24.6	7	14	9	12	8	14
Fort Gratiot	38.09	48.12	58.87	47.25	48.08	78	22	28.9	26.1	17	37	15	40	15	35
Fort Mackinac	36.80	45.06	55.38	43.64	45.22	70	25	24.8	20.2	17	35	4	8	3	6
Fort Brady	39.12	47.13	51.90	43.00	45.29	68	27	22.7	18.3	12	33	6	17	9	15
Fort Howard	39.64	46.25	57.35	46.09	47.33	73	23	25.7	24.3	3	6	4	12	3	7
Fort Ripley	33.96	42.84	54.93	39.67	42.85	70	17	27.2	25.8	12	25	0	0	9	10
Fort Snelling	39.70	48.80	59.19	49.19	49.22	70	31	20.8	18.2	5	6	10	20	7	10
Fort Leavenworth	47.09	53.16	67.00	56.12	55.84	81	27	25.2	28.8	13	18	8	12	3	3
Fort Kearney	37.35	54.00	67.93	48.64	41.98	85	14	43.0	28.0	8	12	13	19	3	3
Fort Arbuckle	49.46	61.19	72.74	59.32	60.68	86	28	25.3	32.7	10	27	16	36	3	4
Fort Worth	54.09	68.54	81.32	63.35	66.82	96	30	29.2	36.8	3	8	14	29	8	18
Fort Graham	55.67	65.32	80.20	65.29	66.62	90	32	23.4	34.6	3	4	15	26	8	8
Fort Gates	56.74	68.19	82.61	66.50	68.51	95	30	26.5	38.5	13	18	2	3	4	8
Fort Croghan	61.48	69.48	82.52	68.84	70.58	91	41	20.4	29.6	18	60	6	12	6	12

MONTH OF OCTOBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
13	24	25	61	17	32	32	73	19	46	4.87	5.55	5.48	2.16	4.51	17	14	12	0	3.24	
7	17	11	28	23	46	42	63	22	47	5.16	4.90	5.64	5.77	5.37	16	15	7	0	3.45	
11	20	24	44	11	22	22	55	32	97	4.58	5.45	5.70	4.87	5.15	18	13	9	0	2.76	
7	21	27	59	14	34	25	79	30	118	5.32	5.03	5.16	5.77	5.32	18	13	6	0	3.58	
6	13	4	5	40	92	10	26	47	107	4.70	5.10	5.10	6.10	5.25	18	13	7	0	5.89	
13	23	15	41	20	60	8	22	48	139	7.10	6.80	6.80	7.60	7.08	20	11	5	0	1.83	
9	23	16	32	15	31	34	68	28	81	6.35	6.32	5.64	6.41	6.18	21	10	7	0	3.16	
6	16	24	27	15	28	7	22	33	89	4.23	4.77	4.35	5.64	4.75	17	14	10	0	2.34	
0	0	33	93	16	41	66	220	4	8	5.09	6.67	7.06	4.64	5.87	16	15	11	0	3.37	
2	5	33	45	8	8	28	33	28	45	3.90	3.11	3.16	4.20	3.59	13	18	9	0	7.64	
2	2	26	52	17	33	24	66	21	48	3.48	3.58	4.12	4.06	3.81	13	18	17	0	12.39	
32	53	0	0	35	69	0	0	39	108	7.58	6.67	7.03	6.29	6.89	16	15	9	0	5.59	
7	10	14	30	23	57	27	75	15	43	2.38	3.90	4.03	4.93	3.81	15	16	10	0	3.10	
2	4	10	19	38	104	15	55	6	18	2.22	4.90	5.23	4.74	4.27	15	16	11	0	4.29	
7	16	5	10	4	5	57	133	20	57	7.27	7.21	7.29	7.19	7.24	16	15	7	0	4.08	
9	19	17	36	31	54	39	86	12	32	....	....	....	....	....	20	11	5	0	1.54	
12	26	8	19	4	9	16	34	26	74	5.64	7.00	7.93	6.70	6.82	21	10	7	0	3.10	
7	12	17	38	29	74	12	35	22	58	7.18	7.25	7.19	8.26	7.47	26	5	4	0	0.76	
6	20	9	33	14	48	11	38	20	66	6.29	7.38	7.16	8.08	7.22	26	5	4	0	0.88	
7	13	1	2	4	8	14	25	9	15	6.50	7.61	7.61	7.70	7.36	25	6	3	0	0.70	
15	49	4	12	7	20	18	43	7	20	7.96	7.83	7.67	7.25	7.68	..	..	..	..	....	
7	9	3	3	10	26	1	2	7	19	3.19	3.80	3.00	3.87	3.47	14	17	8	0	4.18	
11	25	0	0	0	0	0	0	4	9	7.29	7.25	6.83	7.96	7.33	18	13	7	0	2.89	
31	66	5	10	2	5	5	13	19	60	6.74	7.29	6.12	8.12	7.07	24	7	2	0	0.85	
5	7	10	11	3	7	2	3	4	6	3.74	7.31	6.84	8.94	6.71	14	5	1	0	0.96	Last 19 days.
7	10	2	4	11	15	25	45	18	32	5.13	7.20	9.15	8.12	7.40	25	6	4	0	1.03	
5	13	27	65	3	5	2	4	2	6	4.19	5.06	5.80	6.48	5.38	18	13	8	0	5.19	
11	30	24	50	19	42	10	15	9	18	5.32	5.80	6.25	6.87	6.06	19	12	7	0	2.56	
4	13	4	16	14	42	33	83	20	40	3.90	5.61	5.90	6.41	5.46	21	10	6	0	3.75	
9	15	37	99	25	82	11	19	4	10	4.16	5.40	5.14	5.19	4.97	20	11	5	0	1.56	
9	21	46	94	14	40	25	60	11	31	3.58	4.19	5.09	5.00	4.47	16	15	5	0	1.75	
3	3	34	62	11	24	15	25	5	11	7.26	7.39	7.80	2.07	6.13	17	14	9	0	2.45	Clearness inaccurate.
1	1	17	37	22	49	11	22	12	35	4.40	7.20	7.80	7.20	6.65	18	13	5	0	1.80	“ “
0	0	2	4	23	45	51	90	25	45	5.87	5.71	6.29	6.35	6.06	17	14	8	0	1.11	“ “
6	12	12	33	11	34	30	75	10	32	5.12	5.96	6.51	5.41	5.75	16	15	7	0	1.01	“ “
15	35	5	11	27	77	34	99	10	28	6.67	8.80	8.80	3.19	6.87	15	16	14	2	5.05	“ “
28	57	6	7	6	10	18	62	19	82	5.40	4.19	4.10	6.11	4.95	19	12	12	2	4.00	
4	14	19	61	28	60	34	82	6	19	4.64	4.90	5.00	6.38	5.23	17	14	6	1	1.10	
27	71	26	57	6	15	29	86	10	30	7.39	6.63	6.35	6.51	6.72	19	12	5	1	1.45	
16	23	31	48	18	27	16	30	10	12	7.30	7.20	7.80	6.80	7.27	23	8	4	0	0.32	
10	16	35	67	10	22	1	1	27	44	4.87	6.06	5.61	6.12	5.67	19	12	3	0	0.85	
4	9	9	24	18	39	21	25	27	72	6.25	6.06	6.32	7.74	6.59	22	9	4	1	0.26	
9	16	24	54	17	41	28	68	16	29	7.77	8.51	8.48	8.54	8.57	27	4	4	0	1.70	
0	0	44	115	2	3	13	29	5	5	8.00	8.96	8.61	8.93	8.62	28	3	5	0	2.24	
52	70	4	6	19	31	5	5	14	32	1.58	6.00	6.67	8.00	5.56	24	7	6	0	3.77	
5	12	47	128	6	17	8	14	13	37	7.06	7.19	6.93	7.54	7.18	25	6	5	0	....	
21	54	29	87	11	35	2	3	5	14	6.42	7.23	7.13	8.71	7.37	25	6	3	0	0.28	

MONTH OF OCTOBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Martin Scott	53.96	59.58	72.29	62.38	62.05	81	38	19.0	24.0	10	26	11	22	2	2
San Antonio	65.50	73.50	82.20	71.90	73.27	92	50	18.7	23.3	17	23	32	69	26	39
Fort Brown	67.93	83.80	81.09	72.22	76.26	98	54	21.7	22.3	14	40	21	53	3	5
Ringgold Barracks	65.96	79.64	87.96	74.77	77.08	98	46	20.9	21.1	3	8	23	60	25	59
Fort McIntosh	64.61	78.54	86.29	73.48	75.73	96	42	20.3	33.7	3	4	32	53	10	14
Fort Duncan	62.54	74.32	88.27	73.67	74.70	96	43	21.3	31.7	12	26	17	48	18	37
Fort Inge	62.96	70.61	74.81	63.70	68.02	90	42	22.0	26.0	0	0	20	42	2	2
Fort Lincoln	68.11	77.80	86.30	76.40	77.15	88	60	10.9	17.1	32	85	0	0	6	16
El Paso	63.00	73.00	77.00	67.00	70.00	89	58	19.0	12.0	11	26	37	99	12	22
Socorro	46.27	58.00	76.17	61.10	60.38	87	39	26.6	21.4	17	27	6	12	18	32
Albuquerque	41.81	53.97	69.03	55.29	55.52	83	30	27.5	25.5	39	59	4	6	5	12
Cebolletta	45.54	63.93	72.70	54.06	59.06	86	38	26.9	21.1	7	8	2	2	3	3
Las Vegas	30.38	60.16	63.80	41.19	48.88	83	14	34.1	34.9	8	21	6	11	6	16
Santa Fé	44.90	56.70	68.18	53.21	55.75	73	34	17.3	21.7	9	9	27	30	5	6
San Diego	58.64	69.61	73.22	63.67	66.28	80	50	13.7	16.3	16	24	1	2	11	13
San Luis Rey	59.80	67.58	70.38	64.38	65.53	79	52	13.5	13.5	3	5	8	16	3	6
Monterey	50.37	58.43	64.12	55.14	57.01	78	42	21.0	15.0	18	26	1	1	1	1
Benicia	54.00	63.19	76.00	64.01	64.30	94	44	29.7	20.3	0	0	0	0	0	0
Camp Far West	50.00	66.41	80.80	66.77	66.00	97	41	31.0	25.0	11	15	0	0	6	6
Astoria	48.48	55.64	66.45	52.22	55.45	82	42	26.5	13.5	1	2	1	2	44	99
Columbia Barracks	45.07	53.34	64.00	52.93	53.83	76	36	22.2	17.8	7	15	7	12	4	8
Dalles of Columbia	42.03	52.64	64.80	51.10	52.64	82	31	29.4	21.6	2	2	2	3	10	16
Fort Steilacoom	43.35	51.51	60.70	51.93	51.87	74	30	22.1	21.9	38	56	2	5	0	0

MONTH OF OCTOBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
24	71	10	24	12	47	1	2	14	48	6.61	7.90	8.25	9.03	7.95	27	4	4	0	0.99	
20	30	23	41	2	4	2	2	2	2	7.40	7.70	8.00	7.60	7.67	25	6	5	0	0.81	Clearness inaccurate.
71	163	0	0	2	5	2	3	8	16	6.54	5.93	6.58	7.54	6.68	24	7	6	0	5.79	
51	176	3	7	0	0	0	0	0	0	4.80	5.09	5.45	7.09	5.61	21	10	5	0	0.58	
64	130	1	2	1	1	1	2	10	14	4.67	5.77	5.96	4.00	5.10	22	9	4	0	2.21	
18	40	30	67	3	6	10	19	5	9	5.35	6.64	6.48	8.54	6.75	24	7	5	0	1.30	
54	79	9	16	6	11	0	0	0	0	7.51	7.74	7.81	7.60	7.67	25	6	3	0	1.70	
24	62	43	94	4	8	0	0	3	4	5.12	7.50	7.20	6.10	6.48	24	7	4	0	....	Temp. for first 12 [days.
4	6	2	2	5	14	11	25	22	53	7.00	8.00	7.00	7.00	7.25	26	5	3	0	0.60	
22	37	23	42	9	16	13	17	9	11	7.11	8.40	7.18	7.80	7.62	27	4	5	0	1.81	
11	35	31	57	2	2	8	16	2	4	6.71	7.45	7.30	7.42	7.22	25	6	3	0	0.28	
13	16	11	15	7	8	23	31	43	56	7.03	7.41	6.86	7.61	7.48	24	7	5	0	1.58	
8	17	20	47	7	13	9	16	6	11	5.51	8.58	8.38	5.25	6.93	29	2	1	0	0.00	Temp. in excess at 9 [a. m.
19	24	3	4	22	31	16	24	11	14	8.06	7.80	7.87	8.45	8.04	27	4	6	0	0.38	
10	13	10	16	22	36	32	49	12	22	4.45	6.42	6.83	5.32	5.76	21	10	3	0	0.19	
0	0	0	0	17	45	56	143	32	104	4.00	5.00	6.00	5.00	5.00	18	13	3	0	0.20	
0	0	6	7	30	43	45	79	16	24	4.09	5.03	6.87	5.61	5.40	17	14	0	0	0.00	
0	0	1	1	108	221	0	0	0	0	6.22	7.20	8.01	7.28	7.18	26	5	0	0	0.00	
4	7	66	95	13	24	1	1	8	13	9.38	9.48	9.35	9.77	9.50	31	0	2	0	0.01	
5	9	0	0	27	56	39	91	3	4	4.35	4.51	4.48	4.09	4.36	17	14	9	0	6.70?	
1	3	8	25	3	10	89	167	7	12	4.71	7.42	8.22	4.20	6.14	23	8	10	0	2.69	
0	0	2	3	13	15	53	92	1	1	5.87	6.77	7.10	7.80	6.86	24	7	6	0	0.91	
6	23	4	6	25	64	13	24	28	60	1.58	3.16	4.45	5.00	3.55	9	22	15	0	2.40	

MONTH OF NOVEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	35.46	40.06	43.83	39.50	39.71	59	27	19.3	12.7	11	17	6	8	6	9
Fort Preble	36.16	39.83	43.96	40.13	40.02	60	28	20.0	12.0	35	96	14	33	2	5
Fort Constitution	36.06	41.50	45.93	39.26	40.69	60	24	19.3	16.7	21	65	7	15	13	37
Fort Adams	42.87	45.30	49.69	46.10	45.98	64	28	18.0	18.0	38	122	13	24	4	12
Fort Trumbull	41.20	44.80	49.00	44.30	44.82	65	25	20.2	19.8	10	19	30	59	1	3
Fort Hamilton	43.30	45.00	53.20	46.70	47.05	67	31	20.0	16.0	32	82	11	29	15	30
Fort Columbus	42.06	44.53	49.80	44.36	45.19	61	29	15.8	16.2	9	18	33	76	5	5
West Point	38.50	42.47	47.30	43.23	42.87	60	24	17.1	18.9	35	110	3	6	1	3
Watervliet Arsenal	34.20	39.66	44.66	37.60	39.03	60	20	21.0	19.0	18	60	0	0	0	0
Plattsburg Barracks	34.28	38.23	44.18	39.13	38.95	59	24	20.1	14.9	18	20	6	7	2	2
Madison Barracks	37.00	40.60	45.73	37.96	40.32	70	17	29.7	23.3	9	16	16	32	8	9
Fort Ontario	37.06	41.70	46.83	39.53	41.28	69	20	27.7	21.3	0	0	19	41	0	0
Fort Niagara	39.83	41.76	49.13	42.33	43.26	72	25	28.7	18.3	13	32	2	5	9	20
Alleghany Arsenal	36.56	41.60	49.40	40.76	42.08	70	20	27.9	22.1	6	6	16	31	4	5
Carlisle Barracks	33.17	42.40	51.18	39.16	41.48	66	22	24.5	19.5	1	4	5	11	26	55
Fort McHenry	47.60	50.90	55.30	51.66	51.36	61	36	9.6	15.4	7	11	31	79	2	2
Fort Monroe	49.80	51.70	56.60	52.60	52.67	68	36	15.3	16.7	11	28	19	39	19	34
Fort Moultrie	53.66	59.73	66.63	59.33	59.84	76	38	16.2	21.8	18	52	21	66	5	18
Oglethorpe Barracks	50.53	59.26	66.33	57.10	58.30	76	32	17.7	26.3	10	15	14	26	2	4
Fort Dallas	69.73	76.50	79.46	71.76	74.36	88	50	13.6	24.4	0	0	79	206	0	0
Key West	71.10	73.53	75.70	73.83	73.54	81	60	7.5	13.5	31	116	45	141	22	73
Mount Vernon Arsenal	48.60	52.63	64.93	56.13	55.57	82	29	26.4	26.6	20	62	20	45	5	14
New Orleans Barracks	53.12	61.25	69.97	58.00	60.58	85	40	24.4	20.6	43	67	10	15	15	19
Fort Towson	45.10	49.46	60.80	51.50	51.71	80	26	28.3	25.7	25	54	2	7	18	36
Fort Washita	45.90	54.20	62.43	51.76	53.57	82	31	28.4	22.6	18	48	9	19	11	21
Fort Gibson	46.09	50.90	56.09	49.01	50.52	77	20	26.5	30.5	17	48	14	49	7	16
Fort Scott	37.29	45.90	54.27	46.90	46.09	76	20	29.9	26.1	19	25	14	21	1	3
Jefferson Barracks	41.11	45.90	54.60	47.53	47.28	74	24	26.7	23.3	26	56	4	12	7	11
St. Louis Arsenal	39.40	44.40	52.50	42.60	44.72	76	24	31.3	20.7	29	41	2	2	7	11
Newport Barracks	42.53	45.70	53.03	47.47	47.18	74	25	26.8	22.2	28	49	4	8	7	10
Detroit Barracks	38.30	45.76	51.73	41.06	44.21	76	20	31.8	24.2	0	0	10	18	14	24
Fort Gratiot	35.43	42.40	49.06	42.13	42.25	74	18	31.8	24.2	12	17	8	14	10	18
Fort Mackinac	31.23	37.74	39.73	35.86	36.14	60	24	23.9	12.1	23	62	10	27	16	80
Fort Brady	34.93	37.23	41.13	36.24	37.38	56	21	18.6	16.4	4	5	10	28	23	67
Fort Howard	30.26	33.10	41.86	33.53	34.69	64	8	29.3	26.7	7	26	7	20	8	16
Fort Ripley	25.96	29.53	37.96	28.56	30.50	54	9	23.5	21.5	15	36	2	4	12	35
Fort Snelling	30.20	33.50	37.16	36.16	33.73	57	15	23.3	18.7	11	22	22	46	11	21
Fort Leavenworth	36.23	39.06	50.43	43.06	42.19	72	18	29.8	24.2	8	11	17	20	4	4
Fort Kearney	25.50	36.33	47.56	31.86	35.31	66	6	30.7	29.3	35	108	15	35	4	4
Fort Atkinson	30.63	39.47	50.33	36.13	39.14	68	12	28.9	27.1	5	..	27	..	5	..
Fort Arbuckle	43.80	53.50	62.30	52.10	52.92	80	30	27.1	22.9	8	26	0	0	2	2
Fort Worth	45.86	54.16	63.13	51.53	53.67	83	28	29.3	25.7	21	52	3	4	19	58
Fort Graham	47.33	55.73	65.73	54.98	55.94	82	28	26.1	27.9	3	3	10	20	3	6
Fort Gates	45.70	52.96	66.73	53.50	54.72	82	26	27.3	28.7	23	73	0	0	2	2
Fort Croghan	50.01	56.17	66.40	55.20	56.94	80	30	23.1	26.9	17	43	7	23	0	0
Fort Martin Scott	47.00	51.13	58.33	49.43	51.47	75	26	23.5	25.5	13	53	25	74	1	1
San Antonio	57.73	64.03	70.16	62.60	63.63	83	39	19.4	24.6	24	35	18	20	27	35

MONTH OF NOVEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	13	4	4	22	45	16	19	38	71	3.63	4.02	4.01	1.15	3.20	10	20	5	4	3.00	
4	5	3	5	8	20	26	56	23	48	4.60	5.10	5.03	5.26	5.00	13	17	3	2	2.80	
7	15	13	25	9	18	27	68	21	50	3.43	4.90	5.36	4.70	4.57	17	13	4	3	2.48	
3	8	12	27	9	23	21	64	18	62	3.73	4.33	4.93	5.47	4.61	15	15	6	0	2.39	
10	16	1	1	22	42	9	38	34	59	2.80	3.80	4.30	4.30	3.80	14	16	9	0	4.45?	
3	7	12	25	7	20	4	18	32	93	4.00	4.10	4.60	4.90	4.40	14	16	4	1	1.98	
4	6	8	9	15	28	12	31	28	65	3.86	4.60	4.06	4.23	4.19	14	16	6	0	2.33	
6	10	24	52	9	17	4	8	28	66	2.53	2.90	3.43	3.27	3.04	11	19	9	1	2.17	
0	0	11	37	25	63	48	145	13	32	4.23	4.86	5.06	5.10	4.81	14	16	6	2	1.69	
2	2	26	30	8	9	36	44	20	26	2.29	2.26	3.70	3.29	2.86	11	19	4	2	3.10	
11	16	24	45	10	15	32	105	6	19	3.60	3.96	4.20	3.90	3.91	14	16	8	2	3.93	
46	77	0	0	18	28	0	0	37	110	6.76	6.90	6.53	5.53	6.43	15	15	8	1	4.81	Weather observa'ns
15	17	22	35	19	46	32	80	8	15	2.23	3.43	3.86	4.33	3.46	11	19	9	2	3.06	[inaccurate.
4	6	7	15	23	45	5	9	6	9	....	....	....	....	....	10	20	8	4	2.19	
0	0	10	22	11	17	55	103	8	23	5.60	7.30	7.24	7.03	6.79	11	19	6	1	0.87	
14	34	9	24	11	28	7	16	21	69	2.03	3.75	6.50	4.73	4.25	15	15	10	0	4.30	
8	15	3	8	18	19	19	50	21	58	5.10	4.23	5.07	5.14	4.88	15	15	11	0	1.92	
3	9	12	44	26	88	4	16	29	118	5.10	5.80	5.13	6.43	5.61	19	11	8	0	1.99	
5	7	1	2	7	12	13	28	12	19	9.20	9.10	9.20	9.80	9.32	22	8	3	0	0.80	
19	43	0	0	0	0	14	37	1	2	....	....	....	....	....	..	..	..	..	....	
9	34	7	8	2	5	0	0	1	5	6.06	6.46	6.56	7.70	6.69	22	8	2	0	0.01	
30	79	8	24	2	5	3	13	30	91	5.13	5.26	5.10	6.96	6.61	21	9	6	0	2.32	
3	5	19	38	9	24	10	11	6	8	2.33	4.33	4.66	6.54	4.46	16	14	5	0	1.58	
6	15	23	59	3	8	8	18	2	4	3.20	3.36	3.63	5.39	3.92	13	17	7	0	6.21	
10	26	27	87	14	32	15	37	9	23	3.06	4.30	3.50	5.43	4.07	14	16	12	0	5.14	
5	14	18	61	10	33	8	29	38	75	3.73	4.00	4.40	6.03	4.54	16	14	6	0	4.75	
4	8	40	119	9	25	16	33	13	18	3.15	3.18	4.20	4.70	3.81	14	16	6	0	4.39	
1	1	56	147	7	32	10	39	7	26	3.33	4.36	4.66	5.56	4.48	16	14	9	0	4.11	
2	2	37	61	5	6	29	50	4	10	6.80	7.56	7.43	1.63	5.86	15	15	7	0	4.65	
2	7	24	39	11	20	25	68	15	41	6.30	7.40	7.70	7.10	7.12	16	14	6	2	6.45	
3	3	3	6	10	24	71	104	5	6	4.73	4.56	4.63	5.40	4.83	15	15	5	2	2.36	
8	15	30	67	12	31	25	48	11	24	3.83	4.70	4.60	4.76	4.47	16	14	17	2	2.19	
5	11	9	21	15	43	26	84	10	34	6.00	8.96	8.70	2.86	6.63	13	17	4	7	3.15	
26	64	2	7	25	56	8	31	19	62	2.70	2.30	3.50	3.10	2.90	9	21	3	7	1.35	
0	0	37	109	15	27	24	60	2	3	2.73	3.30	3.73	4.40	3.54	12	18	7	6	2.59	
20	42	18	28	3	12	29	76	11	36	5.31	5.30	5.16	4.80	5.14	16	14	5	5	3.65	
13	25	6	14	17	31	19	43	14	22	6.80	5.50	5.70	4.80	5.70	16	14	6	4	1.68	Therm. protected.
5	5	28	51	13	38	2	4	31	47	4.30	4.16	4.36	5.30	4.53	15	15	8	1	3.84	
16	29	13	27	4	5	11	12	9	26	4.86	4.63	5.53	6.70	5.43	18	12	2	2	1.57	
11	..	7	..	10	..	5	..	42	..	....	....	....	....	....	19	11	3	3	....	
4	4	27	50	28	72	37	119	8	28	6.43	6.86	6.43	6.70	6.60	21	9	8	1	5.40	
23	73	17	56	8	10	9	17	9	13	3.93	5.70	5.26	5.50	5.10	17	13	8	0	4.90	
12	26	5	9	54	84	19	28	9	18	2.13	4.73	5.63	6.33	4.70	18	12	7	0	1.09	
5	17	38	124	7	22	8	17	23	53	3.50	3.66	4.20	5.74	4.27	11	19	11	0	....	
14	52	38	108	3	7	13	36	7	13	3.90	3.37	4.70	5.50	4.37	12	18	7	0	1.02	
17	61	27	71	0	0	0	0	0	0	4.60	5.23	5.80	7.10	5.95	16	14	13	0	3.87	
12	16	21	30	2	2	5	7	6	14	....	....	....	....	....	17	13	7	0	2.34	

MONTH OF NOVEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Brown	62.80	68.73	70.50	66.80	67.26	84	46	16.7	21.3	0	0	29	68	0	0
Ringgold Barracks	59.50	67.76	74.33	64.83	66.60	93	42	26.4	24.6	9	21	9	18	19	40
Fort McIntosh	55.60	62.90	71.36	61.53	62.85	91	38	28.1	24.9	6	14	23	35	7	9
Fort Duncan	55.41	62.46	73.75	62.36	63.49	94	34	30.5	29.5	16	40	19	32	24	50
Fort Inge	54.60	62.20	69.43	58.33	61.14	93	41	31.8	20.2	3	3	15	23	0	0
Fort Lincoln	....	....	....	....	....	..	..	....	....	10	26	16	31	1	1
El Paso	....	....	....	....	....	69	45	....	....	6	20	27	71	15	37
Socorro	33.70	43.30	56.40	42.25	43.91	68	21	24.1	22.9	58	115	3	3	3	10
Albuquerque	29.90	39.47	54.13	39.73	40.81	66	17	25.2	23.8	31	34	5	6	6	10
Cebolletta	30.33	44.10	54.10	35.60	41.03	68	11	27.0	30.0	0	0	0	0	3	4
Las Vegas	14.66	46.33	51.30	35.30	32.98	61	6	28.0	27.0	14	37	3	5	9	19
San Diego	47.73	58.00	66.66	53.70	56.52	77	37	20.5	19.5	0	0	4	4	21	24
San Luis Rey	51.40	58.86	65.60	56.53	58.50	74	40	15.5	18.5	2	7	38	76	10	25
Monterey	44.60	56.05	61.03	52.28	53.49	74	38	20.5	15.5	15	26	0	0	0	0
Benicia	47.40	54.90	64.24	51.20	54.44	75	40	20.5	14.5	1	2	8	13	18	24
Sonoma	41.86	55.70	66.56	51.13	53.81	83	31	29.2	22.8	4	16	1	2	3	4
Camp Far West	40.36	51.03	61.63	48.00	50.26	77	30	26.8	20.2	13	25	14	26	4	4
Astoria	41.08	44.30	57.03	43.36	46.44	74	33	27.6	13.4	1	3	6	14	68	135
Columbia Barracks	37.15	43.52	50.32	41.43	43.11	58	25	14.9	18.1	10	27	3	10	4	8
Dalles of Columbia	29.27	38.20	47.15	37.10	37.93	60	19	22.1	18.9	3	4	0	0	5	5
Fort Steilacoom	37.10	40.83	46.66	40.26	41.21	56	27	14.8	14.2	26	65	6	16	30	82

MONTH OF NOVEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
55	166	1	3	0	0	3	11	32	90	3.33	3.03	2.96	3.70	3.26	12	18	7	0	0.69	
27	98	11	38	0	0	0	0	22	70	2.63	3.00	3.53	5.30	3.62	13	17	8	0	2.91	
48	113	3	5	2	5	3	3	25	45	2.30	3.50	4.90	3.56	3.56	14	16	7	0	2.68	
29	78	14	28	3	7	4	10	9	21	4.13	4.53	5.20	5.90	4.94	16	14	10	0	3.70	
76	122	19	32	0	0	0	0	4	4	5.53	5.45	5.46	4.70	5.28	16	14	5	0	3.60	
28	60	58	109	0	0	0	0	4	15	4.11	4.21	5.30	4.17	4.45	17	13	11	0	....	
20	48	8	14	10	25	16	42	18	57	5.00	5.20	6.10	4.90	5.30	25	5	4	0	4.60	Temp. obs. the first 4
7	14	11	34	11	22	8	15	11	25	6.11	6.26	7.70	6.19	6.67	23	7	6	2	0.92	[and last 3 days.
5	11	30	47	6	14	12	13	2	2	5.93	6.70	6.20	6.43	6.31	23	7	6	1	1.02	
8	15	9	10	21	24	34	42	33	54	5.83	6.60	5.63	7.40	6.36	21	9	3	4	0.55	
7	20	15	42	12	22	11	34	13	33	....	....	....	....	....	..	..	0	2	0.12	Temp. in excess at 9
21	32	5	11	17	51	13	36	6	17	4.73	4.83	4.56	5.13	4.81	16	14	7	0	2.82	[a. m.
7	29	2	7	11	29	16	43	29	81	5.30	5.60	5.60	5.30	5.45	19	11	5	0	3.28	
0	0	5	10	39	64	26	30	29	33	4.70	5.66	5.30	4.96	5.16	15	15	5	0	0.61	
7	17	16	44	19	48	7	10	4	9	6.25	8.12	7.17	6.17	6.93	24	6	8	0	1.03	
1	1	4	5	10	16	14	19	2	2	4.63	5.80	6.13	6.23	5.70	19	11	9	0	2.33	
10	19	47	113	11	13	11	12	11	21	....	....	....	....	....	20	10	7	0	2.10	
11	21	11	27	9	27	6	20	0	0	1.73	2.56	2.80	3.46	2.64	9	21	16	0	13.20?	
4	9	7	17	5	16	83	169	3	9	....	....	....	....	....	12	18	14	0	4.90	
0	0	0	0	21	23	33	50	1	2	4.23	5.15	5.00	5.29	4.92	15	15	7	0	1.14	
0	0	4	9	35	127	2	5	12	29	2.50	1.90	3.56	3.00	2.74	6	24	18	0	5.14	

MONTH OF DECEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	20.67	24.74	26.80	23.64	23.96	45	2	21.0	22.0	14	28	7	28	5	21
Fort Preble	18.83	20.96	26.38	23.45	22.40	46	— 4	23.6	26.4	44	115	12	46	0	0
Fort Constitution	19.51	23.29	28.67	24.19	23.91	46	0	22.1	23.9	19	38	20	86	14	45
Fort Adams	30.03	31.61	35.32	33.93	32.72	48	13	15.3	19.7	15	49	6	24	6	16
Fort Trumbull	28.04	31.03	35.02	32.00	31.52	51	9	19.5	22.5	6	22	29	57	3	6
Fort Hamilton	32.70	33.80	38.30	33.90	34.67	53	17	18.3	17.3	22	54	19	52	3	7
Fort Columbus	31.13	32.71	35.87	33.19	33.22	50	14	16.8	19.2	6	13	22	50	11	23
West Point	26.03	29.16	32.19	30.09	29.37	54	6	24.6	23.4	19	58	3	10	0	0
Watervliet Arsenal	16.35	22.26	25.58	21.42	21.40	46	—18	24.6	39.4	19	69	0	0	0	0
Plattsburg Barracks	16.70	18.26	25.20	17.12	19.32	46	— 8	26.7	27.3	51	54	15	26	0	0
Madison Barracks	16.41	19.00	24.00	19.51	19.73	48	—22	28.3	41.7	12	33	39	91	14	38
Fort Ontario	21.00	23.19	27.37	23.16	23.68	48	2	24.3	21.7	0	0	24	74	0	0
Fort Niagara	25.90	26.80	31.22	26.42	27.59	60	5	32.4	22.6	4	11	16	74	11	42
Alleghany Arsenal	29.83	32.00	37.60	31.29	32.68	64	17	31.3	15.7	9	18	14	19	6	8
Carlisle Barracks	29.16	31.23	36.70	31.10	32.05	54	17	22.0	15.0	4	11	4	10	31	76
Fort Mifflin	32.60	36.70	41.19	34.70	36.30	56	18	19.7	18.3	23	83	7	31	15	50
Fort McHenry	33.22	41.00	45.51	41.77	40.37	56	26	15.6	14.4	11	32	36	88	5	11
Fort Monroe	42.40	44.30	49.80	46.60	45.75	68	28	22.3	17.7	5	12	30	78	14	29
Fort Moultrie	50.32	55.90	61.87	54.22	55.58	77	31	21.4	24.6	17	52	16	51	4	9
Oglethorpe Barracks	49.16	54.67	62.29	54.01	55.04	78	28	23.0	27.0	6	18	14	34	2	4
Fort Dallas	66.90	74.09	80.00	69.27	72.57	87	52	14.4	20.6	0	0	26	55	8	17
Key West	70.71	74.08	76.74	75.19	74.17	83	59	8.8	15.2	64	252	11	25	15	41
Fort Barrancas	48.18	54.94	60.23	54.94	56.20	74	40	17.8	16.2	8	11	13	26	7	9
Mount Vernon Arsenal	47.90	49.48	58.35	52.45	52.04	78	26	27.0	26.0	13	39	30	90	6	17
New Orleans Barracks	50.32	55.32	62.77	53.56	55.49	80	24	24.5	31.5	26	48	22	42	20	28
Baton Rouge Barracks	45.45	50.67	60.12	48.45	51.17	80	21	28.8	30.2	34	61	14	23	20	37
Fort Towson	34.29	37.51	46.58	38.77	39.29	73	7	33.7	32.3	52	129	1	1	13	28
Fort Washita	32.64	36.79	42.45	36.77	37.16	76	1	38.8	36.2	32	106	3	8	10	20
Fort Gibson	30.93	34.03	43.19	35.87	36.01	67	— 1	31.0	37.0	57	175	10	33	5	19
Fort Scott	23.00	27.12	33.26	26.28	27.41	58	— 2	30.6	29.4	37	81	11	23	3	3
Jefferson Barracks	27.96	29.80	36.03	30.38	31.04	54	5	23.0	26.0	41	159	3	10	0	0
St. Louis Arsenal	26.26	29.00	35.16	29.00	29.85	50	4	20.1	25.9	38	83	5	13	9	10
Detroit Barracks	22.61	26.48	31.16	23.67	25.98	44	—13	18.0	38.0	14	23	22	44	2	5
Fort Gratiot	18.74	24.76	30.48	23.70	24.42	52	—16	27.6	40.4	29	63	22	53	17	30
Fort Mackinac	15.90	20.32	23.09	19.00	19.58	36	— 2	16.4	21.6	38	103	24	73	15	52
Fort Brady	14.18	17.12	25.23	18.10	18.66	42	— 8	23.3	26.7	5	14	4	20	42	95
Fort Howard	14.41	16.09	23.25	17.61	17.84	38	— 8	10.2	25.8	18	71	3	8	4	6
Fort Ripley	0.67	4.19	13.64	5.64	6.03	32	—22	26.0	28.0	13	23	5	6	8	14
Fort Snelling	8.01	11.58	16.99	13.12	12.42	30	—14	17.6	26.4	2	5	16	37	9	17
Fort Leavenworth	21.22	22.96	31.12	25.51	25.20	53	— 3	27.8	28.2	50	60	9	14	2	3
Fort Kearney	13.37	19.45	26.19	17.61	19.15	44	—12	24.8	31.2	39	104	13	33	4	11
Fort Atkinson	19.35	23.45	31.76	23.42	24.50	47	—12	22.5	36.5	36	..	4	..	2	..
Fort Arbuckle	27.00	33.90	43.00	32.70	34.15	66	0	21.9	34.1	9	39	4	8	1	1
Fort Worth	33.12	38.58	46.06	37.74	38.87	75	7	36.1	31.9	37	130	8	13	6	6
Fort Graham	34.25	39.64	47.74	39.77	40.35	78	5	37.7	35.3	14	30	3	9	0	0
Fort Gates	33.93	38.83	49.77	38.16	40.17	80	4	39.8	36.4	27	96	1	2	2	7
Fort Croghan	37.20	42.32	52.13	42.00	43.41	81	9	37.6	34.4	41	123	4	11	0	0

MONTH OF DECEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	1	2	4	7	10	45	75	43	68	4.58	6.09	5.19	3.06	4.73	17	14	1	15	4.80	
3	6	1	2	2	4	41	68	21	32	5.22	5.00	3.61	4.51	4.58	15	16	2	10	4.50	
1	3	1	2	9	22	33	72	27	81	3.12	4.54	3.32	3.77	3.69	12	19	4	9	2.22	
2	5	2	7	20	47	23	48	50	178	4.84	4.32	3.10	4.80	4.27	14	17	7	5	6.58	
8	20	0	0	12	32	9	12	57	118	3.40	2.70	3.60	4.00	3.42	12	19	11	4	10.38?	
1	2	6	21	18	69	13	40	42	163	4.30	3.50	3.00	3.80	3.65	14	17	9	4	5.77	
4	9	2	5	18	48	27	63	33	106	3.26	3.06	3.00	4.06	3.35	15	16	6	6	5.36	
8	18	21	43	24	55	6	18	43	143	1.93	2.00	2.35	3.65	2.48	7	24	7	11	5.65	
0	0	26	80	11	29	51	161	17	43	4.46	5.96	5.22	5.09	5.18	15	16	4	9	2.75	
2	2	11	14	10	11	13	13	22	23	3.20	2.11	2.90	2.24	2.61	11	20	1	13	7.25	
9	26	11	44	6	21	17	75	9	28	2.38	2.39	2.29	2.96	2.75	7	24	2	15	6.26	
26	54	0	0	34	75	0	0	35	88	5.41	5.19	5.64	3.80	5.01	12	19	1	15	2.90	Inaccurate.
7	12	2	5	28	83	12	36	38	133	1.35	1.84	2.03	2.32	1.89	7	24	2	14	1.82	Therm. protected.
6	9	6	12	27	85	21	67	5	13	1.74	1.32	3.16	3.64	2.47	6	25	11	6	4.76	
4	7	1	2	15	29	40	102	18	67	5.19	4.29	5.10	6.70	5.32	15	16	7	4	3.81	
2	9	13	43	26	97	12	48	14	64	3.00	3.22	3.58	4.29	3.52	12	19	8	2	4.66	
12	28	0	0	13	29	16	41	22	80	2.25	4.12	4.93	4.51	3.95	15	16	9	2	4.40	
4	11	3	6	19	47	29	75	16	42	4.09	3.23	4.18	5.02	4.13	16	15	13	0	7.10	
10	32	15	57	22	81	9	29	19	55	4.61	4.38	4.48	5.16	4.66	13	18	11	0	4.64	
6	20	1	2	13	25	19	42	26	57	....	....	....	....	....	17	14	11	0	3.27	
29	65	8	20	5	8	4	10	5	14	7.41	7.36	7.31	7.09	7.29	..	..	..	..	....	First 21 days.
14	48	17	42	0	0	0	0	1	1	5.80	5.87	5.71	6.80	6.04	24	7	6	0	2.10	
10	30	2	14	5	24	3	9	9	25	1.93	2.00	2.35	2.65	2.23	4	12	4	0	....	For the last 16 days.
18	58	16	46	6	26	4	11	27	104	2.80	2.77	3.70	3.83	3.28	9	22	13	0	5.22	
0	0	14	29	20	35	12	26	8	17	3.77	3.35	4.06	5.23	4.09	13	18	12	0	3.46	
8	16	11	15	11	22	7	16	14	33	3.06	3.22	3.51	4.93	3.68	12	19	15	1	9.28	
4	11	14	26	3	5	3	7	5	17	2.06	1.96	3.35	3.96	2.83	11	20	9	2	5.07	
7	13	15	41	10	21	16	41	24	63	2.74	2.87	3.09	4.29	3.25	11	20	10	2	3.75	
9	28	2	5	8	17	2	6	24	72	3.02	3.71	4.68	4.87	4.07	15	16	3	4	3.00	
12	15	14	24	17	45	12	18	17	22	3.10	2.29	2.30	4.00	2.92	11	20	2	5	2.21	
10	16	39	76	2	2	9	28	11	39	2.87	3.19	3.96	4.09	3.53	12	19	6	7	3.32	
7	12	24	26	7	9	11	19	18	44	....	....	....	....	....	13	18	3	4	2.17	
0	0	2	4	10	18	47	81	22	26	1.83	2.12	2.74	4.12	2.70	10	21	2	9	1.49	
9	25	11	20	10	21	13	19	9	30	3.43	4.29	4.35	4.77	4.21	15	16	4	13	1.98	
3	12	1	3	7	30	13	59	18	69	....	....	....	....	....	6	25	3	17	0.40	
21	58	8	36	14	46	12	49	8	25	3.80	4.00	4.20	1.25	3.31	9	22	0	10	2.91?	
2	3	15	29	5	14	39	110	13	25	2.54	2.51	2.56	2.93	2.64	10	21	2	12	0.95	
18	34	20	41	16	32	13	31	13	36	6.03	4.74	5.58	6.25	5.65	19	12	0	12	0.51	
24	38	6	14	14	15	9	17	43	78	5.70	5.50	5.30	5.60	5.52	19	12	0	7	0.04	
5	7	32	41	8	9	2	3	9	12	3.45	3.70	3.87	4.51	3.88	14	17	1	6	0.76	
7	15	13	31	7	12	21	31	10	15	5.48	5.06	5.54	5.48	5.37	19	12	0	8	0.30	
4	..	2	..	2	..	5	..	62	..	....	....	....	....	....	17	14	0	6	....	
4	8	20	33	22	40	40	59	22	55	5.50	6.00	6.00	5.50	5.75	19	12	2	6	1.25	
8	20	7	21	4	8	2	3	6	16	5.19	6.09	6.03	5.90	5.80	19	12	8	2	5.10	
31	44	5	5	7	8	10	11	52	109	2.06	3.93	4.48	6.45	4.23	15	16	8	1	11.03?	
3	9	31	76	1	4	14	27	41	65	3.61	4.12	4.32	5.03	4.27	14	17	10	1	....	
6	16	23	46	6	13	12	34	28	64	4.38	3.90	4.48	5.71	4.62	13	18	9	2	2.56	

MONTH OF DECEMBER, 1850.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Martin Scott	36.09	39.32	41.58	39.74	39.18	64	10	24.8	29.2	23	69	42	118	2	4
San Antonio	41.45	46.61	56.45	46.19	47.67	79	18	31.3	29.7	30	51	26	41	18	20
Fort Brown	51.92	61.03	64.12	55.80	58.22	86	22	27.8	36.2	26	69	20	39	1	1
Ringgold Barracks	46.90	55.61	65.74	54.35	55.65	90	18	34.3	37.7	33	117	13	30	13	32
Fort McIntosh	42.45	50.48	60.48	49.80	50.80	86	17	35.2	33.8	10	15	26	34	7	10
Fort Duncan	39.58	49.80	62.45	49.06	50.22	81	12	30.8	38.2	39	103	17	33	22	47
Fort Inge	39.22	45.19	53.16	45.67	45.81	67	20	21.2	25.8	19	27	14	23	0	0
Fort Lincoln	......	......	......	......	......	....	....	......	......	31	124	14	37	0	0
El Paso	29.48	41.00	48.00	35.00	38.37	66	4	27.6	34.4	6	14	37	100	16	49
Socorro	21.24	28.15	39.30	30.14	29.71	62	— 1	32.3	30.7	68	156	13	28	4	7
Albuquerque	18.45	24.70	36.32	24.39	25.96	52	— 5	26.0	31.0	46	69	17	30	15	46
Cebolletta	19.58	26.22	33.19	23.16	25.54	47	3	21.5	23.5	10	17	1	2	6	14
Las Vegas	9.00	27.96	34.67	15.29	21.73	51	—29	29.3	50.7	18	41	5	14	7	16
Santa Fé	14.03	24.45	35.77	18.77	23.25	54	—11	30.8	34.2	..	..	..	..	..	..
Fort Yuma	37.08	51.76	65.26	36.33?	51.70	75	15	23.3	36.7	29	44	12	23	36	62
San Diego	40.83	50.09	58.48	45.38	48.69	67	29	18.3	19.7	0	0	14	24	17	21
San Luis Rey	43.51	51.80	59.41	47.70	50.60	70	33	29.4	17.6	8	12	27	71	12	28
Monterey	43.72	50.14	54.58	47.91	49.09	65	30	15.9	19.1	19	27	0	0	0	0
Benicia	40.21	46.24	55.19	44.14	46.45	63	28	16.5	18.5	11	18	12	23	17	26
Sonoma	41.77	49.32	57.52	48.03	49.16	72	28	22.8	21.2	4	8	3	5	3	3
Camp Far West	36.25	42.41	52.83	40.87	43.09	61	24	17.9	19.1	10	12	4	13	6	8
Astoria	37.16	38.93	47.51	39.05	40.66	59	22	18.3	18.7	0	0	18	51	86	185
Columbia Barracks	31.80	35.60	40.37	35.37	35.78	49	15	13.2	20.8	22	45	10	19	25	52
Dalles of Columbia	29.27	31.74	35.60	33.57	32.55	46	5	13.4	27.6	1	1	5	5	25	27
Fort Steilacoom	33.96	35.58	41.96	37.09	37.15	50	20	12.8	17.2	..	..	..	..	..	..

MONTH OF DECEMBER, 1850.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in nches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	16	15	32	5	12	1	3	1	5	6.83	6.93	7.45	7.58	7.20	19	12	8	2	2.74	
2	2	12	13	11	12	14	18	10	16	....	....	....	....	....	16	15	8	1	2.90	
27	63	3	9	11	32	12	27	15	38	3.29	3.58	4.58	4.22	3.92	12	19	1	1	0.15	
3	12	8	18	4	13	1	1	20	52	3.29	3.61	5.12	4.76	4.19	15	16	2	0	0.01	
26	35	2	3	2	2	6	9	47	92	3.38	3.80	4.90	3.35	3.86	16	15	5	1	0.49	
10	30	9	16	4	9	6	14	10	21	5.38	5.12	5.80	5.60	5.48	18	13	5	1	1.40	
63	91	0	0	19	39	0	8	8	21	....	....	....	....	....	..	..	4	1	2.10	
28	57	35	62	7	19	0	0	7	22	5.12	5.20	5.21	4.17	4.93	17	14	4	1	....	
16	37	4	5	1	2	14	46	26	54	6.84	6.20	7.00	7.00	6.76	19	12	1	1	1.10	
9	21	3	4	4	11	9	13	11	22	7.40	6.18	6.80	7.20	6.90	24	7	1	9	0.44	
1	1	2	2	3	8	5	10	9	16	4.80	6.16	5.84	6.60	5.60	20	11	2	5	0.61	
0	0	2	4	37	52	30	36	26	43	5.83	6.29	5.90	5.93	5.99	21	10	0	10	1.84	
7	12	11	29	11	22	7	13	10	20	....	....	....	....	....	..	..	0	8	3.12	
..	..	..	..	..	..	..	..	..	..	....	....	....	....	....	15	16	0	11	1.60	
15	23	7	10	5	12	3	5	7	13	8.10	8.00	7.80	8.70	8.15	26	5	1	0	0.02	Temp. in error at 9
21	27	4	4	19	44	12	33	6	17	6.40	6.67	6.61	7.03	6.68	23	8	7	0	1.93	[p. m.
27	67	1	2	19	54	12	24	6	20	6.00	7.00	7.00	7.00	6.75	23	8	4	0	2.22	
0	0	16	26	37	42	28	30	23	37	6.87	7.03	6.31	7.51	6.93	22	9	8	0	2.98	
8	12	12	22	8	20	12	22	5	9	8.50	8.10	8.60	8.18	8.34	26	5	7	0	2.18	
7	7	5	5	6	7	5	6	7	10	6.13	6.23	6.42	6.43	6.30	19	12	10	0	3.78	
11	22	61	108	3	6	4	4	19	29	....	....	....	....	....	..	..	6	0	2.00	
0	0	0	0	11	28	4	6	4	7	2.58	3.61	4.16	4.06	3.60	14	17	12	0	6.20?	
11	19	1	2	0	0	39	77	11	20	3.84	5.44	6.77	2.22	4.57	18	13	8	4	1.29	
0	0	14	15	1	1	20	21	1	1	....	....	....	....	....	14	17	3	4	0.19?	
..	..	..	..	..	..	..	..	..	..	1.16	1.19	1.61	2.12	1.52	8	23	8	4	2.62	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Sullivan........	44 54	66 58	30	23.88	27.17	27.29	40.87	46.55	55.95	61.69	61.51	57.80
Fort Preble..........	43 39	70 13	50	24.69	27.41	31.77	40.25	49.47	62.26	66.65	64.86	58.40
Fort Constitution	43 04	70 42	40	25.39	28.57	32.05	40.66	49.51	64.33	67.20	65.41	58.48
Fort Adams	41 30	71 19	40	33.34	34.07	35.40	42.74	53.04	65.04	72.63	70.03	63.64
Fort Trumbull.......	41 21	72 06	23	33.31	33.90	36.10	43.32	53.69	67.18	72.69	69.27	62.77
Fort Hamilton.......	40 37	74 02	25	34.25	35.37	37.17	45.00	54.35	68.90	73.32	72.12	66.55
Fort Columbus.......	40 42	74 01	23	32.78	33.42	36.16	44.08	54.45	68.63	75.06	71.04	64.32
West Point..........	41 23	74 00	167	30.75	32.75	35.46	44.62	53.49	63.49	73.03	68.69	61.67
Watervliet Arsenal ..	42 43	73 43	50	22.52	25.33	30.29	40.94	53.44	68.22	76.13	67.64	59.20
Plattsburg Barracks ..	44 41	73 30	186	21.45	24.46	28.80	37.94	49.64	65.39	68.97	64.96	58.88
Madison Barracks....	43 57	76 15	262	25.05	24.43	30.49	40.55	50.91	67.90	72.13	68.88	60.06
Fort Ontario	43 20	76 40	250	27.27	27.06	31.36	40.18	47.79	65.96	70.29	69.58	60.85
Fort Niagara	43 18	79 08	250	29.77	28.51	32.47	39.98	52.39	67.65	72.19	69.29	59.32
Alleghany Arsenal...	40 32	80 12	704	33.63	31.87	32.50	46.06	53.97	68.48	76.10	72.28	62.51
Carlisle Barracks	40 12	77 14	......	30.13	32.40	36.85	46.46	56.48	71.15	75.79	71.58	62.14
Fort Mifflin	39 53	75 13	20	35.25	37.72	40.06	47.50	57.82	71.46	77.18	73.35	68.05
Fort McHenry.......	39 17	76 35	36	38.18	39.78	42.75	50.59	61.20	74.67	78.55	73.96	67.88
Fort Monroe.........	37 00	76 18	8	43.34	43.01	46.57	51.07	62.99	73.09	78.46	76.85	71.45
Fort Moultrie........	32 45	79 51	25	54.89	50.68	56.21	62.53	71.76	76.84	83.76	83.31	77.81
Oglethorpe Barracks .	32 05	81 07	40	......	55.55	59.57	66.87	73.38	78.59	82.81	83.15	77.23
Pilatka	29 34	81 48	16	52.87	......	......	......	......	......	......	......	......
Fort Dallas..........	25 55	80 20	20	......	......	......	79.06	79.22	80.50	83.74	84.45	82.64
Key West...........	24 32	81 48	10	......	......	......	......	......	......	85.34	84.78	83.15
Fort Hamer	27 27	82 25	20	......	......	......	......	77.55	80.34	80.96	83.64	82.24
Fort Brooke.........	28 00	82 28	20?	70.45	64.64	70.92	73.62	76.41	78.61	80.86	81.74	81.56
Mt. Vernon Arsenal..	31 12	88 20	200	56.30	51.66	61.55	66.61	73.18	76.90	79.89	81.61	78.33
East Pascagoula	30 23	88 28	10	......	......	......	......	......	......	......	86.08	83.44
New Orleans Bar'ks..	29 57	90 00	10	59.31	55.32	63.89	68.13	72.26	76.12	82.54	......	......
Baton Rouge Bar'ks..	30 26	91 18	41	64.01	58.51	63.47	72.84	76.90	78.59	84.81	83.67	78.57
Fort Towson	34 00	95 33	300?	46.10	47.13	53.48	59.81	67.22	76.06	80.57	82.49	75.28
Fort Washita........	34 09	96 27	645	47.06	46.29	52.96	59.50	66.31	74.62	81.01	83.31	77.04
Fort Smith..........	35 23	94 29	460	46.50	51.51	57.78	58.51	67.27	76.62	......	......	......
Fort Gibson.........	37 47	95 10	842	42.15	42.39	49.42	55.35	66.63	76.54	81.00	83.78	75.45
Fort Scott...........	37 45	94 35	1000?	34.66	35.69	42.27	48.53	61.87	73.47	79.34	81.24	71.63
Jefferson Barracks ...	38 28	90 15	472	34.04	35.36	42.51	48.54	65.27	76.11	81.44	80.18	69.57
St. Louis Arsenal.....	38 40	90 05	450	34.03	33.76	41.33	48.55	61.47	75.61	78.88	77.89	67.31
Newport Barracks....	39 05	84 22	500	37.47	35.54	42.44	51.16	59.32	74.64	79.59	76.50	66.87
Detroit Barracks.....	42 20	82 58	580	30.77	29.65	35.37	44.31	55.04	69.63	74.59	71.69	60.64
Fort Gratiot.........	42 55	82 23	598	29.43	26.89	29.62	41.71	48.91	66.87	71.25	68.67	57.48
Fort Mackinac.......	45 51	84 33	728	23.66	23.09	25.67	33.92	48.10	61.30	68.00	67.25	58.91
Fort Brady..........	46 30	84 43	600	21.83	21.74	26.92	36.88	47.31	62.64	65.88	64.49	54.46
Fort Howard	44 30	88 05	620	21.79	23.38	28.98	37.83	50.11	66.75	70.87	68.03	56.31
Fort Ripley..........	46 10	94 19	1130	7.94	13.03	20.27	32.54	50.99	63.76	66.21	67.84	54.60
Fort Snelling........	44 53	93 10	820	13.84	17.83	24.05	35.43	55.81	70.51	75.85	73.90	61.06
Fort Leavenworth....	39 21	94 44	896	26.49	31.34	37.22	45.58	61.51	72.44	76.86	77.93	67.80
Fort Kearney........	40 38	98 57	2360	22.92	27.28	31.74	39.94	58.90	68.20	74.95	73.00	63.85
Fort Atkinson	37 47	100 14	2330	......	......	......	......	......	......	......	......	......
Fort Arbuckle	34 36	97 40	1000?	......	......	......	......	......	......	......	......	......

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1850.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
50.45	39.71	23.96	38.24	59.72	49.32	25.00	43.07	87	— 6	43.9	49.1	Maine.
50.27	40.02	22.40	40.50	64.59	49.56	24.83	44.87	92	— 8	47.1	52.9	Maine.
50.02	40.69	23.91	40.74	65.65	49.73	25.96	45.52	96	— 6	50.5	51.5	New Hampshire.
55.49	45.98	32.72	43.39	69.23	55.37	33.38	50.34	84	6	33.7	44.3	Rhode Island.
54.78	44.82	31.52	44.37	69.71	54.12	32.91	50.28	87	6	36.7	44.3	Connecticut.
55.72	47.05	34.67	45.51	71.35	56.44	34.76	52.01	94	12	42.0	40.0	New York harbor.
53.78	45.19	33.22	44.90	71.24	54.43	33.14	50.93	94	9	43.1	41.9	New York harbor.
51.91	42.87	29.37	44.52	68.40	52.15	30.96	49.01	92	6	43.0	43.0	New York.
48.05	39.03	21.40	41.56	70.66	48.76	23.08	46.01	88	—18	42.0	64.0	New York.
46.86	38.95	19.32	38.46	66.44	48.23	21.74	43.72	90	—14	46.3	57.7	New York.
48.02	40.32	19.73	40.65	69.64	49.47	23.07	45.71	91	—22	45.3	67.7	New York.
48.40	41.28	23.68	39.78	68.61	50.18	26.00	46.14	90	— 1	43.8	47.2	New York.
49.43	43.26	27.59	41.61	69.71	50.67	28.62	47.65	88	5	40.4	42.6	New York.
49.33	42.08	32.68	45.18	72.29	51.31	32.73	50.38	95	2	44.6	48.4	Pennsylvania.
50.20	41.48	32.05	46.60	72.84	51.27	31.53	50.56	92	— 4	41.4	54.6	Pennsylvania.
56.06	......	36.30	48.46	74.00	......	36.42	......	98	10	....	....	Pennsylvania.
58.23	51.36	40.37	51.51	75.73	59.16	39.44	56.46	92	12	35.5	44.5	Maryland.
60.65	52.67	45.75	53.54	76.13	61.59	44.04	58.82	94	18	35.2	40.8	Virginia.
66.28	59.84	55.58	63.50	81.30	67.98	53.72	66.37	95	24	28.6	22.4	South Carolina.
65.58	58.30	55.04	66.61	81.52	67.04	......	......	96	31	....	....	Georgia.
......	......	......	......	......	......	......	......	..	32	....	....	East Florida.
77.17	74.36	72.57	......	82.90	78.06	......	......	95	52	....	....	East coast of Peninsula, near Cape Florida.
77.41	73.54	74.17	......	......	78.03	......	......	91	59	....	....	Florida.
......	......	......	......	81.65	......	......	......	95	..	....	....	N'r Charlotte harbor, W. coast Peninsula.
72.02	......	......	73.65	80.40	......	......	......	91	44	....	....	Tampa Bay, Fla.
66.96	55.57	52.04	67.11	79.47	66.95	53.33	66.72	95	26	28.3	40.7	Alabama.
......	......	......	......	......	......	......	......	..	..	....	....	Mississippi.
66.41	60.58	55.49	68.09	......	......	56.71	......	98	24	....	....	Louisiana.
65.47	......	51.17	71.07	82.36	......	57.90	......	100	21	....	....	Louisiana.
63.12	51.71	39.29	60.17	76.37	63.37	44.14	61.01	95	7	34.0	54.0	Indian Territory.
65.53	53.57	37.16	59.59	79.64	65.38	43.50	62.03	97	1	35.0	61.0	Indian Territory.
......	......	......	62.22	......	......	......	......	92	4	....	....	Arkansas.
62.48	50.52	36.01	57.13	80.44	62.85	40.51	60.23	100	— 1	38.0	61.2	Indian Territory.
58.20	46.09	27.41	50.89	78.02	58.64	32.55	55.02	98	— 3	43.0	58.0	Kansas.
57.44	47.28	31.04	51.14	79.24	58.09	33.44	55.48	95	— 2	39.6	57.5	Missouri.
54.15	44.72	29.85	50.45	77.79	55.39	31.24	53.72	102	— 5	48.3	58.7	Missouri.
54.40	47.18	......	51.30	76.91	56.15	......	......	98	0	....	....	Kentucky.
49.58	44.21	25.98	44.97	71.97	51.46	28.80	49.30	93	—13	53.7	62.3	Michigan.
48.08	42.25	24.42	40.08	68.93	49.23	26.91	46.29	94	—16	47.7	62.3	Michigan.
45.22	36.14	19.58	35.90	65.52	46.76	22.11	42.57	86	—10	43.4	52.6	Michigan
45.29	37.38	18.66	37.04	64.34	45.71	20.73	41.96	94	—11	52.0	53.0	Michigan.
47.33	34.69	17.84	38.97	68.22	46.11	21.00	43.57	91	—14	47.4	57.6	Green Bay, Wisconsin.
42.85	30.50	6.03	34.60	65.94	42.65	8.99	38.05	90	—28	52.0	60.0	Upper Mississippi river, Min
49.22	33.73	12.42	37.76	73.42	48.00	14.69	43.47	98	—24	54.5	67.5	Minnesota.
55.84	42.19	25.20	48.10	75.74	55.27	28.67	51.94	100	—11	48.1	62.9	Kansas.
41.98	35.31	19.15	43.52	72.05	47.04	23.11	46.43	100	— 7	53.6	53.4	Platte river, Nebraska.
......	39.14	24.50	......	......	......	......	......	..	—12	....	....	Arkansas river, Kansas.
60.68	52.92	34.15	......	......	......	......	......	..	0	....	....	Canadian river, Indian Ter.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Worth	32 40	97 25	1100?	49.96	50.61	55.63	61.96	67.98	77.63	81.76	85.70	79.69
Fort Graham........	31 56	97 26	900?	......	......	57.84	62.28	68.45	78.84	83.90	85.07	78.43
Fort Gates..........	31 26	97 49	1200?	56.21	54.35	59.97	64.59	68.58	76.28	80.80	82.51	78.26
Fort Croghan........	30 40	98 05	1100?	54.14	53.66	62.33	63.73	63.55	74.35	79.62	83.46	80.50
Fort Martin Scott....	30 10	99 05	1300?	54.15	52.39	57.10	62.87	65.92	73.45	75.67	78.86	73.55
San Antonio.........	29 25	98 25	800?	57.28	56.78	62.53	69.35	72.55	80.61	84.75	85.88	83.06
Fort Brown	25 54	97 26	50	62.49	66.03	70.61	73.24	74.31	80.43	84.87	84.76	84.74
Ringgold Barracks...	26 23	98 42	200?	65.48	65.57	70.95	76.92	76.97	85.17	88.94	89.06	83.08
Fort McIntosh.......	27 30	97 27	400?	60.78	61.85	68.62	74.04	76.42	82.23	86.09	90.12	86.64
Fort Duncan........	28 38	100 28	800?	58.63	58.74	66.19	69.97	75.24	80.78	83.44	86.49	84.38
Fort Inge...........	29 09	99 49	1000?	54.91	55.87	61.86	63.11	70.98	78.42	81.87	83.60	81.91
Fort Lincoln.........	29 22	99 33	900?	57.00	56.53	62.32	64.39	68.85	76.77	81.47	82.52	81.65
El Paso	31 44	106 38	3830	......	......	......	......	......	......	......	87.14	85.22
Socorro.............	34 10	106 50	4560	39.75	40.12	48.74	55.25	63.38	73.59	79.25	82.50	73.61
Albuquerque.........	35 06	106 38	5032	35.20	40.50	46.20	50.20	61.02	70.76	75.90	74.44	68.07
Cebolletta...........	35 15	107 20	6200?	34.80	40.08	45.25	49.82	59.05	68.85	76.33	76.90	70.31
Las Vegas...........	35 35	105 16	6418	38.15	34.30	41.20	46.20	51.77	64.18	67.93	73.01	66.47
Santa Fé.............	35 41	106 02	6846	30.25	31.91	40.94	50.72	......	......	76.20	75.25	......
Taos................	36 25	105 45	7900?	......	......	......	......	51.50	63.20	......	......	......
Fort Yuma..........	32 43	114 36	120	......	......	......	......	......	......	......	......	......
San Diego...........	32 42	117 14	150?	51.25	52.42	54.87	59.41	61.86	64.00	67.39	74.49	71.44
San Luis Rey........	33 13	117 25	20	......	......	......	......	......	......	70.64	73.71	73.50
Monterey............	36 36	121 52	140	49.25	50.15	50.67	54.59	55.84	56.72	57.58	57.70	59.56
San Francisco	37 48	122 26	150?	......	......	49.79	54.45	55.21	57.20	......	......	......
Benicia	38 03	122 08	64	47.37	49.16	51.20	......	......	69.77	67.50	66.74	65.00
Sonoma	38 20	122 28	100?	......	......	......	......	......	......	......	......	......
Camp Far West	39 07	120 18	100	44.05	45.88	49.20	57.55	71.88	......	......	......	......
Astoria	46 11	123 48	50?	......	......	......	......	......	......	......	62.22	59.38
Fort Vancouver*.....	45 40	122 30	40	38.14	40.99	37.29	56.61	60.19	61.32	67.40	66.65	61.62
Oregon City.........	45 20	122 24	200?	38.01	......	......	......	......	......	......	......	......
Dalles of Columbia ..	45 40	120 45	200?	......	......	......	......	......	......	......	......	57.43
Fort Steilacoom......	47 10	122 25	300?	35.87	39.12	40.51	47.33	55.60	61.11	64.25	63.40	56.52
Cantonment Loring ..	43 04	112 27	4800	24.31	24.06	25.23	42.71	......	......	......	......	......

* Designated as *Columbia Barracks* subsequent to September of this year.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1850.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
66.82	53.67	38.87	61.82	81.69	66.06	46.48	64.01	107	7	43.0	56.0	Northern Texas.
66.62	55.94	40.35	62.84	82.60	66.99	......	......	104	5	....	....	Colorado river, Texas.
68.51	54.72	40.17	64.03	79.86	67.16	50.24	65.32	103	4	37.7	61.1	Texas.
70.58	56.94	43.41	63.20	79.14	69.34	50.40	65.52	102	9	36.5	54.5	Texas.
62.05	51.47	39.18	61.96	75.99	62.35	48.57	62.21	96	10	4.38	51.2	Texas.
73.27	63.63	47.67	74.67	83.74	73.32	53.91	71.41	101	18	2.96	53.4	Texas.
76.26	67.26	58.22	73.32	83.32	76.08	62.24	73.49	98	22	24.5	51.5	Rio Grande, Texas.
77.08	66.60	55.65	74.64	87.72	75.58	62.23	75.54	107	18	31.5	67.5	Rio Grande, Texas.
75.73	62.85	50.80	73.02	86.15	75.07	57.47	72.92	107	17	34.1	55.9	Rio Grande, Texas.
74.70	63.49	50.22	70.46	83.57	74.19	55.86	71.02	105	12	34.0	59.0	Rio Grande, Texas.
68.02	61.14	45.81	64.98	81.26	70.39	52.19	67.20	101	20	33.8	47.2	Southwestern Texas.
77.15	......	......	65.19	80.25	......	......	......	101	30	....	....	Southwestern Texas.
70.00	......	38.37	......	......	......	......	......	101	4	....	....	Rio Grande, Southern N. Mex.
60.38	43.91	29.71	55.79	78.45	59.30	33.19	56.68	104	— 1	47.3	57.7	Rio Grande, New Mexico.
55.52	40.81	25.96	52.47	73.70	54.80	33.89	53.57	94	— 3	40.4	58.6	Rio Grande, New Mexico.
59.06	41.03	25.54	51.37	74.03	56.80	33.47	53.92	100	3	46.1	50.9	New Mexico.
48.88	32.98	21.73	46.42	68.37	49.44	31.39	48.90	97	—29	46.1	77.9	Border of the Plains, Eastern N. Mexico.
55.75	......	23.25	......	......	......	28.47	......	100	—11	....	....	New Mexico.
......	......	......	......	......	......	......	......	84	....	....	....	Upper New Mexico.
......	......	51.70	......	......	......	......	......	—	15	....	....	Colorado river, California.
66.28	56.52	48.69	58.71	68.63	64.75	50.79	60.72	97	29	36.3	31.7	Southern California.
65.53	58.50	50.60	......	......	65.84	......	......	96	33	....	....	Coast of Southern California.
57.01	53.49	49.09	53.70	57.33	56.69	49.39	54.78	74	30	19.2	24.8	California.
......	......	......	53.15	......	......	......	......	70?	....	....	....	California.
64.30	54.44	46.45	......	68.00	61.25	47.66	......	103	28	....	....	California.
......	53.81	49.16	......	......	......	......	......	..	28	....	....	San Pablo Bay, California.
66.00	50.25	43.09	59.54	......	......	44.34	......	107	24	....	....	Marysville, California.
55.45	46.44	40.66	......	......	53.76	......	......	75	22	....	....	Astoria, Oregon.
53.83	43.11	35.78	51.36	65.12	52.85	38.30	51.91	91	19	39.1	32.9	Oregon.
......	......	......	......	......	......	......	......	..	20	....	....	Mouth of Willamette river, Oregon.
52.64	37.93	32.55	......	......	49.33	......	......	..	5	....	....	Columbia river, Oregon.
51.87	41.21	37.15	47.81	62.93	49.86	37.38	49.49	86	20	36.5	29.5	Puget's Sound, Wash'n Ter.
......	......	......	......	......	......	......	......	..	— 8	....	....	Near Fort Hall, Oregon.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1850.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Sullivan	3.83	2.32	2.80	1.50	5.10	6.10	7.10	2.58	4.80	3.24	3.00	4.80	9.40	15.78	11.04	10.95	47.17
Fort Preble	4.85	3.20	2.70	4.60	15.50?	4.80	2.90	3.35	5.95	3.45	2.80	4.50	22.80	11.05	12.20	12.55	59.00
Fort Constitution	6.14	2.72	3.45	4.70	8.31	2.73	2.04	6.50	6.68	2.76	2.48	2.22	16.46	11.27	11.92	11.08	50.73
Fort Adams	5.24	3.51	6.62	4 97	5.75	2.42	4.01	3.65	5.23	3.58	2.39	6.58	17.54	10.08	11.20	15.33	54.15
Fort Trumbull	10.18?	5.48	10.68	7.43	8.52	5.69	9.39	8.94	12.95	5.89	4.45	10.38	26.63	27.02	23.29	26.04	102.98?
Fort Hamilton	4.69	1.74	5.55	1.44	6.74	2 11	3.68	6.16	4.20	1.83	1.98	5.77	13.73	11.95	8.01	12.20	45.89
Fort Columbus	5.57	2.64	4.64	2.72	9.20	3.07	3.92	7.21	4.71	3.16	2.33	5.36	17.56	14.20	10.20	13.57	54.53
West Point	6.06	3.33	4.84	4.30	8.26	3.83	5.89	5.13	8.14	2.34	2.17	5.65	17.40	14.85	12.65	15.04	57.94
Watervliet Arsenal	1.81	0.40	0.84	2.92	4.70	1.91	5.27	3.34	4.23	3.37	1.69	2.75	8.46	10.52	9.29	4.96	33.23
Plattsburg Barracks	1.10	0.98	0.28	3.78	7.13	2.58	4.12	1.38	4.56	7.64	3.10	7.25	11.19	8.08	15.30	9.33	43.90
Madison Barracks	3.16	3.55	2.13	2.87	6.15	1.64	7.57	3.12	4.75	12.39	3.93	6.26	11.15	12.33	21.07	12.97	57.51
Fort Ontario	1.68	1.08	0.37	3.39	3.04	2.03	6.09	1.25	2.40	5.59	4.81	2.90	6.80	7.37	12.80	5.66	32.63
Fort Niagara	4.01	0.67	0.49	0.46?	*0.70	6.64	6.37	5.17	7.25	3.10	3.06	1.82	1.65	18.18	13.41	6.50	39.74
Alleghany Arsenal	3.76	3.45	2.74	2.59	3.30	2.62	2.82	1.27	3.62	4.29	2.19	4.76	8.63	6.71	10.10	11.97	37.41
Carlisle Barracks	4.28	2.76	3.70	2.33	4.83	3.38	8.90	2.72	5.65	4.08	0.87	3.81	10.91	15.00	10.60	10.85	47.36
Fort Mifflin	4.29	2.52	5.39	2.98	7.65	1.65	5.23	6.84	8.45	1.54	....	4.66	16.02	13.72	....	11.47	....
Fort McHenry	5.58	2.43	5.90	3.85	3.08	1.66	3.10	4.70	4.70	3.10	4.30	4.40	12.83	9.46	12.10	10.41	43.80
Fort Monroe	4.32	2.20	3.04	2.47	3.24	1.12	18.01	3.27	2.31	0.76	1.92	7.10	8.75	22.40	4.99	13.62	49.76
Fort Moultrie	2.95	2.83	6 01	2.59	4.10	0.78	2.32	4.03	2.68	0.88	1.99	4.64	12.70	7.13	5.55	10.42	35.80
Oglethorpe Barracks	....	3.03	7.00	6.72	6.00	1.20	14.80	12.67	3.37	0.70	0.80	3.27	19.72	28.67	4.87	....	....
Key West	....	....	....	....	....	....	2.02	3.38	3.93	4.18	0.01	2.10	....	....	7.32	....	....
Fort Brooke	1.44	5.92	3.50	1.65	3.98	2.05	11.98	5.43	2.71	2.89	....	....	9.13	19.46	....	....	....
Mount Vernon Arsenal	9.59	4.81	2.09	4.22	6.72	2.01	6.44	5.13	0.15	0.85	2.32	5.22	13.03	12.58	3.32	19.62	48.55
East Pascagoula	....	....	....	....	....	....	....	1.76	1.03	....	....	....	....	....	....	....	....
New Orleans Barracks	7.40	4.53	2.27	4.10	6.20	8.92	6.31	....	....	0.96	1.58	3.46	12.57	....	....	15.39	....
Baton Rouge Barracks	16.62	7.45	3.13	9.40?	4.19	9.01	4.28	3.75	3.58	1.03	....	9.28?	16.72	17.04	....	33.37	....
Fort Towson	4.03	4.07	2.85	4.79	2.04	5.06	3.29	4.39	2.66	5.19	6.21	5.07	9.68	12.73	14.06	13.17	49.64
Fort Washita	3.10	0.68	2.49	3.33	4.22	5.67	3.30	4.80	2.30	2.56	5.14	3.75	11.04	13.77	10.00	7.53	42.34
Fort Smith	2.87	0.95	1.55	5.28	3.12	3.27	....	....	....	....	....	....	9.95	....	....	....	....
Fort Gibson	1.40	3.17	4.90	4.73	0.37?	4 58	1.00	3.00	0.35	3.75	4.75	3.00	10.00	8.58	8.85	7.57	35.00
Fort Scott	1.59	1.52	2.40	3.13	2.19	4.80	0.27	5.45	0.52	1.56	4.39	2.21	7.72	10.52	6.45	5.32	30.01
Jefferson Barracks	1.65	3.22	4.66	5.02	3.46	1.52	2.95	5.20	2.75	1.75	4.11	3.32	13.14	9.67	8.61	8.19	39.61
St. Louis Arsenal	2.09	3.00	4.89	5.85	3.41	0.17	3.08	1.17	2.20	2.45	4.65	2.17	14.15	4.42	9.30	7.26	35.13
Newport Barracks	10.37?	11.81	12.74	9.34	3.58	5.82	10.66	12.70	3.62	1.80	6.45	....	25.66?	29.38?	11.87	....	....
Detroit Barracks	1.58	1.56	3.84	2.00	0.29	2.65	2.85	3.56	2.11	1.11	2.36	1.49	6.13	9.06	5.58	4.63	25.40
Fort Gratiot	1.35	1.02	3.19	2.61	1.02	4.79	3.06	1.80	1.73	1.01	2.19	1.98	6.82	9.65	4.93	4.35	25.75
Fort Mackinac	0.37	0.06	0.32	0.73	0.50	1.68	5.05	4.10	5.52	5.05	3.15	0.40	1.53	10.83	13.72	0.83	26.91
Fort Brady	1.83	0.83	1.83	2.15	0.70	2.92	8.15	4.09	4.90	4.00	1.35	2.91	4.68	15.16	10.25	5.57	35.66
Fort Howard	....	....	....	....	....	4.92	6.34	6.94	2.69	1.10	2.59	0.95	....	18.20	6.38	....	....
Fort Ripley	1.36	0.91	1.05	2.67	1.52	6.00	11.92	2.51	1.77	1.45	3.65	0.51	5.24	20.43	6.87	2.78	35.32
Fort Snelling	1.67	0.83	2.23	2.60	0.57	4.62	6.15	2.97	1.82	0.32	1.68	0.04	5.40	13.74	3.82	2.54	25.50
Fort Leavenworth	1.10	2.21	3.64	1.74	2.32	5.99	1.63	2.27	0.72	0.85	3.84	0.76	7.70	9.89	5.41	4.07	27.07
Fort Kearney	0.47	0.06	1.06	1.07	2.88	9.93	5.38	1.66	0.43	0.26	1.57	0.30	5.01	16.97	2.26	0.83	25.07
Fort Laramie	0.30	0.42	1.31	1.03	1.41	1.40	1.80	0.51	0.22	0.28	0.22	....	3.75	3.71	0.72?	....	....
Fort Arbuckle	....	....	...	....	....	....	....	....	....	1.70	5.40	1.25	....	....	....	....	....

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1850.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Worth	0.60	0.30	1.20	4.70	6.90	7.30	0.50	3.70	0.51	2.24	4.90	5.10	12.80	11.50	7.65	6 00	37.95
Fort Graham	....	....	1.35	4.25	2.57	4.83	1.50	3.95	0.60	3.77	1.09	11.03	8.17	10.28	5.46	....	....
Fort Croghan	1.00	0.90	3.10	3.40	5.00	5.60	1.60	0.69	0.45	0.28	1.02	2.56	11.50	7.89	1.75	4.46	25.60
Fort Martin Scott	1.07	0.69	1.57	4.60	3.45	10.28	1.71	0.37	1.18	0.99	3.87	2.74	9.62	12.36	6.04	5.50	33.52
San Antonio	0.64	2.07	1.37	3.34	3.22	9.63	3.10	0.17	0.39	0.81	2.34	2.90	7.93	12.90	3.54	5.61	29.98
Fort Brown	4.30	3.80	2.30	0.05	2.20	0.06	1.16	0.01	0.25	5.79	0.69	0.15	4.55	1.23	6.73	8.25	20.76
Ringgold Barracks	3.14	0.61	1.93	0.79	4.55	2.76	0.17	0.11	0.08	0.58	2.91	0.01	7.27	3.04	3.57	3.76	17.64
Fort McIntosh	0.39	0.72	0.46	0.51	3.70	4,93	1.19	0.07	0.00	2.21	2.68	0.49	4.67	6.19	4.89	1.60	17.35
Fort Duncan	0.40	0.12	0.02	0.98	1.00	5.51	2.85	0.60	0.10	1.30	3.70	1.40	2.00	8.96	5.10	1.92	17.98
Fort Inge	0.38	0.71	1.42	1.11	1.07	7.00	2.70	3.19	1.50	1.70	3.60	2.10	2.60	12.89	6.80	3.19	25.48
Fort Lincoln	....	....	...	0.50	2.50	....	....	....	2.80	....	....	....	....	....	....	....	....
El Paso	....	....	....	....	....	....	....	0.70	0.05	0.60	4,60	1.10	....	....	5.25	....	....
Socorro	0.05	0.52	0.60	0.42	0.12	0.17	1.29	0.54	0.24	1.81	0.92	0.44	1.14	2.00	2.97	1.01	7.12
Alberquerque	....	0.05	0.01	0.02	0.21	0,18	1.26	0.45	0.51	0.28	1.02	0.61	0.24	1.89	1.81	....	....
Cebolleta	0.45	1.10	0.63	0.55	0.23	0.28	0.85	0.26	1.37	1.58	0,55	1.84	1.41	1.39	3.50	3.39	9.69
Las Vegas	....	....	....	0.02	....	....	....	....	0.00	0.00	0.12	3.12	....	....	0.12	....	....
Santa Fe	....	1.26	1.00	0.65	....	....	0.98	0.92	....	0.38	....	1.60	....	....	....	....	....
Taos	....	....	....	....	2.40	0.80	....	0.00	....	....	....	....	....	....	....	....	....
San Diego	0.00	1.13	1.00	0.09	0.00	0.68	0.00	0.00	0.00	0.19	2.82	1.93	1.09	0.68	3.01	3.06	7.84
San Luis Rey	....	....	....	....	....	....	0.00	0.00	0.00	0.20	3.28	2.22	....	....	3.48	....	....
Monterey	2.95	2.00	1.30	0.33	0.00	0.00	0.00	0.00	0.02	0.00	0.61	2.98	1.63	0.00	0.63	7.93	10.29
San Francisco	....	....	8.38	....	0.00	0.01	....	....	....	....	....	....	....	....	....	....	....
Sonoma	....	....	....	....	....	....	....	....	....	....	2.33	3.78	....	....	....	....	....
Benicia	4.44	1.68	2.45	....	....	0,00	0.00	0.00	0.01	0.00	1.03	2.18	....	0.00	1.04	8.30	....
Camp Far West	6.31	0.60	5.60	1.40	0.01	....	....	....	....	0.01	2.10	2.00	7.01	....	....	8.91	....
Astoria	....	....	....	....	....	....	....	0.00	1.80	6.70	13.20?	6.20	....	....	21.70?	....	....
Fort Vancouver†	6.66	2.60	6.71	0.60	0.40	3,22	8.35	0.00	0.98	2.69	4.90	1.29	7.71	11.57	8.57	10.55	38.40
Dalles of Columbia	....	....	....	....	....	....	0.01	0.00	0.09	0.91	1.14	0.19?	....	....	2.14	....	....
Fort Steilacoom	8,52	4.83	6.70	1.00	0.30	0.40	0.20	0.00	1.20	2.40	5.14	2.62	8.00	0.60	8.74	15.97	33.31
Cantonment Loring	....	....	3.87	3.27	....	....	....	....	....	....	....	....	....	....	....	....	....

* For the last 12 days.

† Name changed to *Columbia Barracks* in September.

At *Fort Trumbull* and *Newport Barracks* the quantity of rain is largely in excess.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Sullivan........	147	218	69	46	41	37	13	29	44	58	51	76
Fort Preble..........	188	177	64	37	78	19	13	25	16	36	101	68
Fort Constitution....	159	206	83	33	64	20	32	18	67	24	65	68
Fort Adams..........	191	174	88	9	28	35	26	30	28	65	86	60
Fort Trumbull.......	186	179	105	22	16	72	4	28	14	96	31	99
Fort Hamilton.......	212	153	80	21	37	35	30	28	37	50	20	121
Fort Columbus.......	200	165	92	19	28	46	23	25	36	42	56	89
West Point..........	158	207	108	40	84	9	2	24	90	28	15	96
Plattsburg Barracks..	153	212	70	25	51	26	15	18	96	42	62	43
Madison Barracks....	170	195	102	36	23	43	35	15	59	65	85	20
Fort Ontario	176	158	58	34	0	52	0	79	0	120	0	109
Fort Niagara........	142	204	86	39	25	28	33	22	43	62	69	43
Alleghany Arsenal...	161	204	114	27	38	34	16	13	23	65	40	21
Carlisle Barracks.....	191	174	89	20	13	18	71	28	23	24	122	52
Fort Mifflin (*a*)......	170	165	94	12	33	24	21	29	48	65	65	37
Fort McHenry.......	212	153	94	10	34	66	22	23	26	39	52	50
Fort Monroe.........	206	159	109	5	27	55	62	29	21	49	66	47
Fort Moultrie........	200	165	112	1	39	71	9	43	42	74	25	43
Oglethorpe Bar'ks (*b*).	188	139	88	0	10	52	18	32	12	41	42	29
Key West (*c*)........	112	72	46	0	37	40	32	26	13	10	6	7
Fort Brooke (*d*)......	216	88	91	0	13	60	45	30	16	53	35	31
Mt. Vernon Arsenal..	197	168	97	0	29	61	18	70	31	35	14	82
N. Orleans Bar'ks (*e*).	143	149	79	0	49	24	33	9	38	53	36	23
Baton Rouge Bar. (*f*).	191	141	93	1	38	33	41	46	48	44	34	31
Fort Towson........	178	187	93	2	61	7	57	17	64	9	18	9
Fort Washita........	201	164	92	6	26	40	55	38	58	73	38	22
Fort Gibson.........	213	152	58	7	66	46	22	20	33	43	24	69
Fort Scott...........	188	177	68	15	53	41	33	31	90	40	31	31
Jefferson Barracks...	190	175	85	20	53	13	47	20	135	31	42	16
St. Louis Arsenal....	208	157	74	16	64	21	37	23	69	27	57	29
Newport Barracks (*g*)	194	140	71	14	73	23	23	9	63	25	70	26
Detroit Barracks.....	189	176	76	37	23	48	50	9	19	37	127	37
Fort Gratiot.........	198	167	80	40	45	47	55	31	46	38	55	31
Fort Mackinac.......	149	216	71	52	68	44	43	29	29	38	53	37
Fort Brady..........	161	204	83	60	16	11	60	75	22	31	46	61
Fort Howard........	164	201	72	60	26	32	30	13	44	46	81	20
Fort Ripley	217	148	68	46	45	13	29	72	40	20	66	45
Fort Snelling........	189	176	66	34	32	27	36	52	47	52	38	37
Fort Leavenworth....	177	188	63	19	44	39	18	46	94	18	13	65
Fort Kearney	211	154	58	28	43	50	20	30	34	50	32	54
Fort Worth.........	247	118	52	8	31	24	16	31	100	29	27	18
Fort Graham (*h*).....	207	99	61	2	18	17	27	58	50	34	14	26
Fort Gates..........	214	151	84	3	46	9	8	23	133	21	25	39
Fort Croghan	240	125	69	4	27	21	16	61	59	82	18	39
Fort Martin Scott....	234	131	90	4	19	30	8	85	68	32	5	43

OBSERVATIONS FOR 1850.

WINDS.

No. of observat'ons and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
163	386	149	323	50	108	116	251	156	303	232	445	214	396	303	640
310	745	75	180	52	124	101	227	64	134	146	342	402	694	271	486
258	585	81	228	129	305	71	156	266	485	96	211	260	532	274	644
113	405	139	493	105	286	119	312	111	242	260	592	344	856	239	877
63	171	290	892	17	54	112	307	55	155	383	1009	123	371	398	1170
147	360	142	348	121	275	110	235	148	353	200	598	80	244	486	1606
111	264	185	367	92	194	100	224	144	322	170	352	222	488	357	972
338	856	35	67	9	21	95	236	359	765	114	243	61	145	384	1036
205	280	104	151	59	67	74	89	382	553	171	215	248	352	171	264
92	180	171	304	140	222	59	100	235	476	260	514	339	902	83	203
0	0	210	516	0	0	315	588	0	0	481	889	0	0	435	1259
102	299	111	322	132	329	90	171	170	339	250	683	275	848	172	522
152	253	136	239	65	93	53	94	94	211	260	672	161	473	86	222
54	139	72	161	285	554	111	291	91	233	98	191	489	1090	209	631
133	326	94	245	84	194	117	286	194	382	259	606	261	643	149	393
137	377	262	672	87	174	94	222	103	265	157	437	209	495	199	636
110	231	218	464	249	590	118	249	83	184	196	447	265	558	189	431
158	552	285	1184	37	100	172	626	167	665	296	1118	99	344	172	619
41	72	209	422	73	159	127	242	48	86	164	330	170	336	115	253
148	556	159	525	128	429	106	372	52	137	41	125	24	71	27	88
52	84	239	456	180	310	121	202	65	100	214	412	139	236	126	136
116	327	244	548	74	163	282	628	123	227	141	274	76	170	330	764
196	328	94	160	133	179	38	57	151	299	211	351	144	210	93	168
152	316	131	117	164	289	185	290	194	274	175	265	135	236	123	220
245	545	28	54	230	427	67	143	254	485	35	75	72	146	37	105
106	291	159	454	221	601	152	403	233	578	294	757	151	441	89	264
265	721	185	453	89	247	79	222	133	343	174	458	96	239	275	594
214	392	165	278	134	186	126	222	361	902	161	396	125	225	123	220
213	626	51	112	188	462	79	185	539	1368	125	351	169	450	64	196
257	414	84	187	148	193	91	129	277	441	108	201	227	487	116	302
290	705	92	216	91	164	35	69	254	441	101	249	281	736	103	330
92	183	193	371	200	401	36	60	76	148	148	331	508	905	150	266
179	410	188	469	219	427	125	144	185	406	153	433	222	536	123	346
273	458	175	381	174	450	117	279	117	223	152	438	213	577	149	335
62	159	45	143	241	672	301	826	89	210	124	369	183	533	246	966
105	319	127	328	119	230	53	133	176	419	186	426	326	768	79	192
179	367	54	116	116	225	289	699	160	357	79	222	265	608	180	456
127	267	108	232	146	277	207	414	187	390	210	409	152	379	149	476
177	219	157	190	70	83	184	274	378	613	73	141	54	94	261	399
172	444	199	426	82	159	122	271	137	308	200	423	130	170	216	523
126	393	95	289	64	164	125	364	400	1204	118	348	108	225	71	199
71	190	69	155	110	148	233	395	201	275	137	238	58	97	104	225
186	551	34	104	33	61	93	224	531	1404	86	203	100	200	156	415
108	318	86	257	63	128	246	621	238	568	326	699	72	146	158	387
77	241	119	317	30	60	342	837	274	579	127	315	20	34	174	713

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
San Antonio	256	109	58	4	28	62	46	73	59	47	10	24
Fort Brown	247	118	49	1	18	39	12	223	8	15	7	41
Ringgold Barracks	228	137	59	0	25	23	40	154	26	7	6	24
Fort McIntosh	231	134	64	2	16	48	41	174	8	8	6	44
Fort Duncan	255	110	60	1	39	31	99	68	60	10	12	15
Fort Inge (*i*)	231	134	68	1	6	14	17	87	21	11	1	4
Fort Lincoln (*k*)	201	164	47	1	45	14	17	87	127	56	10	17
Socorro	290	75	55	13	64	24	39	39	72	36	27	36
Albuquerque	239	126	48	12	101	24	31	28	78	22	26	20
Cebolletta	263	102	46	35	21	11	16	27	17	18	51	67
Las Vegas (*l*)	216	88	25	22	32	19	16	19	44	40	69	24
Santa Fē (*m*)	184	49	22	17	9	24	15	38	16	37	25	37
San Diego (*n*)	226	139	35	0	21	10	22	49	19	41	58	43
San Luis Rey (*o*)	129	41	12	0	3	24	8	11	1	13	21	86
Monterey	199	166	45	4	73	6	2	5	38	64	76	64
Benicia. (*p*)	205	120	46	1	4	17	25	11	11	144	18	8
Camp Far West (*q*)	162	77	57	0	46	12	6	9	120	11	12	11
Fort Vancouver	219	146	98	0	26	21	66	21	32	22	152	25
Astoria (*r*)	69	84	44	0	1	8	57	4	8	29	36	4
Fort Steilacoom (*s*)	137	228	106	20	80	49	16	23	6	56	26	75

(*a*) November omitted.
(*b*) Except January.
(*c*) Last six months.
(*d*) First ten months.
(*e*) August and September omitted.
(*f*) Except November.
(*g*) Except December.
(*h*) Last ten months.
(*i*) Winds for the last six months.
(*k*) Rain not noted for the first three months.
(*l*) Imperfect.
(*m*) Seven months, Jan. to April, July, Aug , and Oct.
(*n*) Winds not observed in January.
(*o*) Last six months.
(*p*) Except April and May.
(*q*) First five and last three months.
(*r*) Last five months.
(*s*) Except December.

OBSERVATIONS FOR 1850.

WINDS.															
No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
110	249	247	652	185	334	293	708	235	475	188	495	42	83	97	321
72	180	156	365	48	104	891	2034	33	79	59	126	30	69	166	319
101	287	93	204	160	363	617	1846	106	258	29	86	22	24	96	224
64	128	194	319	162	263	697	1609	31	61	33	45	23	36	178	375
156	391	126	301	398	883	272	640	239	516	40	87	48	105	59	168
23	31	56	109	68	130	347	614	83	140	44	88	3	7	16	32
179	412	58	98	69	81	348	571	507	795	226	188	42	54	67	117
256	500	97	171	156	233	157	278	290	513	145	285	108	158	144	306
405	749	97	202	124	349	112	310	314	693	89	286	106	311	81	237
82	135	46	71	64	94	109	169	69	105	112	175	204	349	270	439
129	315	75	180	62	163	75	172	174	452	162	510	275	581	97	298
37	43	97	121	58	83	151	212	63	74	150	211	98	140	150	189
84	149	39	73	88	126	195	418	77	135	164	411	232	519	174	493
13	24	96	235	31	76	44	96	3	9	52	128	84	207	344	1053
291	494	23	37	10	16	19	34	151	220	255	425	302	495	258	444
17	38	69	123	98	213	44	138	43	121	677	1885	74	178	33	75
184	337	50	93	26	30	35	69	481	1103	43	95	50	91	45	83
104	200	82	141	265	378	83	156	127	211	89	144	608	1054	99	182
5	9	30	73	227	462	18	32	30	57	118	221	143	307	15	27
321	434	195	325	63	141	92	163	23	48	226	627	106	232	300	407

MONTH OF JANUARY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	17.35	21.16	26.38	21.19	21.52	45	—10	23.5	31.5	14	18	10	17	3	5
Fort Preble	16.74	18.80	24.29	20.22	20.01	38	—12	18.0	32.0	33	72	8	23	2	3
Fort Constitution	18.80	21.90	27.80	22.77	22.82	44	—12	21.2	34.8	16	38	10	17	4	8
Fort Adams	30.32	31.80	35.93	34.03	33.03	50	5	17.0	28.0	9	29	8	31	8	22
Fort Trumbull	28.09	31.61	36.04	30.80	32.22	51	7	18.8	25.2	1	1	25	44	0	0
Fort Hamilton	31.80	33.80	40.00	34.00	34.90	60	9	24.1	25.9	16	46	10	24	8	23
Fort Columbus	28.93	31.38	36.90	31.39	32.15	51	8	18.9	24.1	18	37	15	24	7	8
West Point	25.06	28.19	34.58	29.97	29.45	57	6	27.6	23.4	13	43	6	15	1	2
Watervliet Arsenal	19.25	22.83	25.67	20.35	22.03	40	— 8	18.0	30.0	31	110	0	0	0	0
Plattsburg Barracks	14.48	18.00	23.70	18.29	18.62	47	—16	28.4	34.6	54	71	7	11	1	1
Madison Barracks	19.22	21.00	26.48	22.54	22.31	46	—17	23.7	39.3	5	15	26	54	8	16
Fort Ontario	25.16	24.36	28.07	24.58	25.69	49	— 6	23.4	31.6	0	0	20	44	0	0
Fort Niagara	26.64	27.58	31.64	28.90	28.69	49	1	20.4	27.6	2	3	6	11	10	12
Alleghany Arsenal	27.87	32.30	38.58	31.12	32.47	62	3	29.6	35.4	6	6	4	4	8	11
Carlisle Barracks	26.80	30.74	38.16	29.83	31.38	62	6	32.7	25.3	2	6	1	1	20	40
Fort Mifflin	27.80	34.00	40.77	30.12	33.17	55	8	21.9	24.1	15	33	3	6	17	35
Fort McHenry	32.29	37.45	42.32	37.16	37.30	50	15	12.7	22.3	7	28	21	42	4	7
Fort Monroe	39.45	40.00	47.10	43.20	42.44	64	14	21.6	28.4	8	26	28	69	8	17
Fort Moultrie	47.16	50.96	56.45	49.80	51.09	68	20	17.0	31.0	28	126	14	43	3	6
Key West Barracks	71.06	74.16	76.67	73.43	73.85	82	59	8.2	14.8	30	110	16	57	27	73
Fort Myers	59.90	66.09	71.61	64.19	65.45	79	40	13.6	25.4	6	25	48	125	17	33
Barrancas Barracks	49.68	52.26	60.13	53.81	54.00	72	30	18.0	24.0	17	31	14	19	27	34
Mount Vernon Arsenal	46.48	48.87	58.67	51.03	51.26	72	27	21.8	24.2	7	20	42	143	1	3
New Orleans Barracks	48.29	54.11	62.98	52.34	54.43	81	30	26.6	24.4	38	79	9	17	24	39
Baton Rouge Barracks	44.74	53.74	62.56	50.70	52.94	78	27	25.1	25.9	32	63	19	32	17	21
Fort Towson	35.87	40.29	56.48	44.61	44.31	70	18	25.7	26.3	31	62	2	4	23	50
Fort Washita	35.03	40.70	56.00	44.00	43.93	73	15	29.1	28.9	19	61	9	15	13	36
Fort Gibson	31.35	41.58	54.32	40.48	41.91	71	13	29.1	28.9	28	92	8	31	3	12
Fort Scott	26.80	33.45	43.09	32.48	33.71	63	4	29.3	29.7	18	44	9	11	2	2
Jefferson Barracks	31.19	33.03	42.67	35.03	35.48	65	0	29.6	35.4	14	28	0	0	0	0
St. Louis Arsenal	27.00	31.35	40.35	31.55	32.56	62	1	29.5	31.5	9	12	5	11	11	12
Newport Barracks	32.00	34.84	41.48	37.36	36.42	60	— 2	23.6	38.4	48	140	3	4	5	8
Detroit Barracks	24.64	29.09	33.25	26.90	28.47	52	— 2	23.6	30.4	6	8	13	25	9	12
Fort Gratiot	19.83	25.09	32.16	25.61	25.67	50	—11	24.4	36.6	23	47	7	11	7	10
Fort Mackinac	17.07	20.70	20.87	19.22	19.47	38	—27	18.6	46.4	27	68	11	31	14	44
Fort Brady	13.68	17.32	22.32	17.45	17.69	37	—30	19.4	47.6	5	20	1	1	24	66
Fort Howard	17.06	18.74	25.09	19.70	20.15	41	—19	20.9	39.1	14	25	11	35	5	10
Fort Ripley	5.29	9.51	16.12	6.09	9.20	35	—39	25.8	48.2	32	73	6	8	0	0
Fort Snelling	9.32	13.09	21.25	16.12	14.95	44	—28	29.1	42.9	7	11	12	17	10	19
Fort Leavenworth	26.09	28.83	40.22	32.83	32.00	50	0	18.0	32.0	34	47	10	11	0	0
Fort Kearney	19.12	27.16	37.32	24.35	27.00	62	— 3	35.0	30.0	38	85	11	29	0	0
Fort Laramie	28.77	32.29	49.00	32.22	35.57	60	— 5	24.5	40.5	0	0	3	3	0	0
Fort Atkinson	24.93	31.30	48.42	33.77	34.61	68	4	33.4	30.6	18	..	14	..	1	..
Fort Arbuckle	29.03	37.38	52.48	38.22	39.28	69	14	29.2	25.8	11	24	2	5	5	12
Fort Worth	35.48	42.93	59.25	45.48	45.78	76	18	30.3	27.7	50	53	9	5	28	48
Fort Graham	37.67	46.90	61.22	47.29	48.27	76	19	27.8	29.2	7	19	25	37	1	1
Fort Gates	37.16	47.06	63.64	43.51	47.84	80	19	32.2	29.8	26	75	4	10	6	12

MONTH OF JANUARY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	17	9	26	11	20	30	54	43	62	4.03	4.70	5.54	0.64	3.74	12	19	4	9	2.81	
2	5	4	9	2	7	38	66	35	53	4.70	5.22	5.03	5.87	5.20	14	17	1	9	3.55	
3	9	7	29	11	18	40	81	33	71	2.09	3.58	3.74	4.32	3.43	12	19	2	6	2.13	
12	36	12	28	22	81	26	69	27	99	4.77	4.74	4.35	5.97	4.95	14	17	5	0	3.12	
5	12	5	14	32	69	11	16	45	104	3.19	4.22	5.00	5.29	4.42	13	18	6	2	4.60	
2	6	13	41	15	44	15	45	45	186	5.25	5.03	5.40	5.30	5.24	15	16	4	2	2.39	
3	6	7	11	24	45	23	64	27	78	3.80	3.77	4.77	5.42	4.19	12	19	4	3	1.46	
9	16	21	47	20	38	15	41	39	120	3.19	3.22	3.51	5.03	3.73	9	22	4	4	0.82	
0	0	26	75	12	39	36	131	19	55	6.19	6.90	7.38	7.00	6.87	13	18	1	6	1.32	Clearness inaccurate.
0	0	17	35	19	31	9	9	17	35	2.06	2.90	8.70	3.06	4.18	10	21	3	3	2.19	
14	32	25	64	17	60	13	32	16	65	2.61	2.64	4.19	4.06	3.37	10	21	3	10	2.39	
22	55	0	0	62	144	0	0	20	79	6.19	5.87	6.29	4.25	5.65	14	17	1	7	2.61	Clearness inaccurate.
13	22	12	21	45	108	11	32	25	105	1.87	2.74	2.84	2.87	2.58	11	20	3	7	1.20	
9	9	17	26	43	93	25	75	10	35	3.87	3.51	3.54	5.19	4.02	14	17	5	2	0.35	
3	7	13	28	4	4	75	203	6	22	6.58	6.96	7.38	7.25	7.04	16	15	3	2	0.51	
2	4	23	61	24	65	31	101	9	41	4.38	5.67	5.90	5.29	5.31	17	14	5	1	1.25	
5	12	4	9	24	46	9	20	50	138	3.93	6.35	6.22	3.87	5.09	19	12	5	0	1.70	
4	10	4	11	34	72	26	67	12	33	4.06	4.25	4.77	6.09	4.79	16	15	7	0	3.21	
5	11	14	38	20	58	8	31	32	97	3.06	3.70	4.25	5.06	4.01	17	14	11	0	3.67	
26	73	16	44	0	0	4	24	5	23	5.32	5.45	6.13	7.00	5.97	21	10	5	0	2.40	
10	25	1	1	9	24	12	34	21	80	2.67	4.35	5.95	5.00	4.48	16	15	11	0	7.61	
6	12	7	7	6	12	5	7	12	40	1.25	1.65	2.36	3.23	2.13	13	18	6	0	3.50	
18	57	10	29	13	42	3	9	30	103	3.06	3.19	3.41	5.25	3.72	14	17	8	1	3.89	
2	6	12	20	6	11	18	29	15	26	3.06	3.45	3.74	4.90	3.78	12	19	6	0	3.82	
9	14	33	50	1	1	6	6	7	11	3.29	3.70	4.58	5.87	4.36	14	17	5	0	0.97	
3	7	25	49	5	7	15	29	3	6	4.58	5.80	5.87	7.77	6.00	11	20	4	0	1.70	
7	18	15	42	27	46	18	34	15	39	5.29	5.87	6.32	7.25	6.18	19	12	3	1	0.20	
9	34	3	8	20	54	14	38	39	77	6.06	6.48	6.55	7.55	6.66	21	10	2	0	0.50	
17	36	20	47	24	55	19	35	15	32	3.61	4.25	4.64	4.60	4.28	15	16	1	0	0.14	
5	15	57	129	19	55	5	24	24	99	4.38	4.96	5.25	7.25	5.46	18	13	3	1	0.40	
13	14	27	33	7	8	37	67	15	45	....	....	....	....	....	17	14	2	1	0.28	
1	2	17	35	11	31	23	69	16	39	....	....	....	....	....	16	15	2	0	0.40	Therm. protected?
4	10	4	7	15	35	57	132	16	38	2.61	4.19	4.06	3.90	3.69	14	17	4	2	1.24	
2	4	22	41	17	42	33	72	13	28	4.29	4.45	5.09	5.22	4.76	16	15	3	6	1.11	
4	11	16	52	8	30	32	112	12	39	....	....	....	....	....	10	21	3	16	0.80	
17	48	12	30	28	80	29	103	8	18	3.64	3.16	2.64	1.64	2.77	6	25	2	11	2.74	
0	0	19	50	40	92	29	68	6	13	3.32	3.22	3.38	3.12	3.35	11	20	1	7	1.12	
38	80	2	4	10	31	15	47	21	71	5.25	4.80	4.58	5.29	4.98	16	15	0	8	1.41	
24	40	8	23	30	79	14	31	19	47	6.06	6.19	5.22	6.00	5.87	18	13	0	9	0.20	
1	1	30	34	22	40	5	10	22	48	3.51	4.16	4.64	4.93	4.31	13	18	2	2	0.54	
11	27	23	53	3	6	19	31	12	46	5.22	5.12	5.45	6.77	5.64	20	11	1	2	1.15	
0	0	1	6	14	34	88	226	18	41	7.93	8.67	6.96	9.32	8.22	25	6	..	..	....	
10	..	12	..	10	..	2	..	46	..	....	....	....	....	....	29	2	1	1	....	
15	42	30	54	18	40	25	39	12	25	6.80	7.38	7.70	7.00	7.22	24	8	1	0	0.01	
17	33	10	28	0	0	2	2	7	13	7.64	8.90	8.90	8.45	8.47	26	5	2	0	2.70	
9	13	0	0	58	100	5	5	19	31	2.96	5.38	5.93	6.38	5.14	20	11	3	0	1.80	
1	1	40	76	7	17	27	46	13	26	6.70	7.35	6.03	7.48	6.89	23	8	5	0	....	

MONTH OF JANUARY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Croghan	42.61	50.74	64.71	48.73	51.20	82	23	30.8	28.2	19	59	8	19	6	16
Fort Martin Scott	36.93	42.90	50.83	41.12	42.95	74	22	31.1	22.9	17	36	23	55	2	3
San Antonio	42.45	53.29	70.70	51.61	54.51	78	27	23.5	27.5	21	32	20	32	5	8
Fort Brown	53.45	63.67	66.61	58.45	60.54	83	34	22.5	26.5	17	44	10	22	23	50
Ringgold Barracks	48.12	59.30	72.06	59.22	59.68	90	26	30.4	33.6	12	32	13	36	4	9
Fort McIntosh	47.19	56.84	70.81	55.84	57.67	87	29	29.4	28.6	7	13	25	35	7	6
Fort Duncan	42.09	53.20	74.09	52.96	55.58	86	28	30.5	27.5	34	77	12	22	25	46
Fort Lincoln	....	....	....	....	....	....	....	....	....	3	5	21	67	0	0
El Paso	31.54	51.00	60.00	41.00	45.75	74	22	28.3	23.7	3	10	30	77	6	14
Socorro	26.10	31.21	48.29	36.20	35.45	64	10	28.6	25.4	19	27	8	13	8	12
Albuquerque	20.67	29.32	43.96	28.84	50.70	57	8	26.3	22.7	14	15	45	53	2	3
Cebolletta	23.70	31.80	41.50	27.00	31.00	54	9	23.0	22.0	3	9	1	1	0	0
Las Vegas	19.77	30.51	43.03	20.96	28.57	50	— 7	21.5	35.5	18	29	7	20	4	11
Santa Fé	21.84	34.80	47.51	31.87	34.01	59	5	25.0	29.0	37	37	16	16	3	3
Fort Yuma	39.61	56.22	74.26	47.51	54.40	82	30	27.6	24.4	53	103	31	44	7	8
San Diego	42.19	50.93	64.25	47.74	51.28	80	32	31.8	19.2	0	0	56	58	17	18
San Luis Rey	44.48	53.51	59.25	50.80	52.01	73	38	21.0	14.0	1	1	29	49	39	54
Sonoma	40.77	52.51	62.48	48.09	50.96	80	31	29.0	19.9	0	0	0	0	5	5
Benicia	41.35	48.93	57.74	44.80	49.54	64	33	14.5	16.5	3	5	3	3	27	30
Camp Far West	36.90	45.19	56.77	42.51	45.34	64	29	18.8	16.5	18	19	3	3	5	6
Astoria	41.16	42.38	46.74	41.67	43.00	56	28	13.0	15.0	0	0	1	2	47	75
Columbia Barracks	39.32	41.09	46.20	41.42	42.01	61	19	19.0	23.0	14	31	11	22	27	54
Dalles of Columbia	34.32	36.83	42.25	38.38	37.95	55	19	17.1	18.9	15	19	0	0	4	7
Fort Steilacoom	38.38	39.35	43.80	40.87	40.60	58	23	17.4	17.6	7	20	0	0	43	120

MONTH OF JANUARY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	24	26	57	18	30	10	22	27	50	6.84	7.39	6.49	7.29	7.00	25	6	3	0	1.09	
8	22	17	41	1	2	0	0	0	0	7.51	8.03	8.58	8.83	8.24	26	5	3	0	0.73	
10	12	13	18	10	14	11	13	13	19	....	....	....	....	....	24	7	3	0	0.75	
20	48	15	27	7	8	11	16	13	45	3.64	3.25	3.67	3.80	3.59	13	18	3	0	0.95	
30	82	8	17	5	12	1	3	16	42	4.83	5.38	5.19	6.09	5.12	19	12	5	0	0.84	
40	61	2	2	7	8	3	3	32	53	3.74	4.48	5.94	4.19	4.59	16	15	3	0	0.11	
14	30	18	38	5	9	7	12	9	25	7.29	8.22	8.06	7.45	7.75	25	6	3	0	0.70	
13	32	66	117	12	30	5	18	4	19	5.64	7.00	6.19	5.87	6.17	21	10	1	0	0.00 ?	
11	27	5	12	17	38	27	112	24	51	8.00	8.10	7.93	7.40	7.86	29	2	0	0	0.00	
5	12	2	3	2	6	11	14	48	87	7.17	8.00	6.29	7.25	7.18	25	6	1	1	0.02	
3	3	2	3	2	3	4	10	7	14	6.87	7.48	7.58	7.29	7.30	24	7	1	3	0.07	
0	0	0	0	9	15	44	50	68	113	7.50	7.87	7.70	3.70	6.69	25	6	1	3	0.15	
5	12	16	34	11	25	6	11	14	20	6.45	9.29	9.20	4.00	7.23	26	5	..	..	....	
0	0	2	4	6	8	4	6	33	45	7.77	7.42	7.40	8.03	7.65	25	6	1	3	0.80	
0	0	0	0	0	0	14	19	16	24	7.32	6.74	6.35	6.74	6.76	20	11	0	0	0.00	
7	7	1	2	20	39	10	14	9	12	5.48	5.41	5.29	6.64	5.71	19	12	2	0	0.03	
5	8	1	1	19	26	20	39	7	13	6.00	6.10	7.00	7.00	6.52	19	12	1	0	0.09	
1	2	2	3	1	1	12	18	3	4	4.32	5.19	5.58	6.79	5.47	18	13	7	0	2.64	
1	1	15	16	30	35	7	8	0	0	8.77	8.83	9.35	8.70	8.91	25	6	5	0	0.88	
20	33	3	3	2	3	11	13	20	27	7.64	7.29	7.48	8.64	7.76	25	6	6	0	2.06	
2	4	0	0	20	28	14	19	40	105	0.85	0.90	1.00	1.39	1.04	5	26	20	3	27.00 ?	
12	32	1	3	0	0	43	80	9	25	4.00	5.41	6.29	1.32	4.25	11	20	17	2	9.55	
0	0	38	44	0	0	31	46	0	0	0.80	1.64	1.16	2.06	1.42	5	26	6	3	3.81	
0	0	2	7	60	210	8	24	4	13	1.16	1.12	1.45	2.03	1.44	4	27	23	4	15.30	

MONTH OF FEBRUARY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	21.96	26.75	29.96	27.25	26.48	44	—11	17.6	37.4	13	29	9	29	4	8
Fort Preble	21.39	24.14	29.39	26.21	25.28	44	— 6	18.8	31.2	34	86	11	25	1	3
Fort Constitution	22.92	26.57	32.46	27.32	27.33	44	— 3	16.7	30.3	24	60	3	10	9	22
Fort Adams	31.50	33.50	27.50	35.71	34.55	51	3	16.5	31.5	6	25	4	6	6	17
Fort Trumbull	30.10	33.06	38.67	34.01	33.15	50	5	16.9	28.1	1	1	16	30	0	0
Fort Hamilton	32.61	34.50	41.70	36.50	36.40	55	12	18.6	24.4	11	33	14	35	17	43
Fort Columbus	29.75	33.21	38.75	33.00	33.68	54	12	21.4	21.6	16	41	17	40	7	9
West Point	28.03	31.14	37.00	32.86	32.26	55	3	22.8	29.2	24	69	3	4	0	0
Watervliet Arsenal	24.28	28.11	31.57	27.39	27.84	47	— 4	19.2	31.8	9	31	0	0	0	0
Plattsburg Barracks	20.85	23.14	28.35	24.46	24.20	48	—18	23.8	42.2	17	24	4	10	5	6
Madison Barracks	25.46	28.00	32.00	27.75	27.80	56	— 9	28.2	36.8	6	17	12	25	8	20
Fort Ontario	27.14	28.60	33.75	29.46	29.74	58	— 3	18.3	32.7	0	0	16	29	0	0
Fort Niagara	28.10	30.24	33.53	29.57	30.36	48	10	17.7	20.3	2	7	15	26	13	25
Alleghany Arsenal	34.70	36.71	43.75	35.53	37.67	60	2	22.4	35.6	11	14	25	31	5	8
Carlisle Barracks	30.96	35.32	41.85	38.64	36.85	56	4	19.2	32.8	0	0	1	2	30	59
Fort Mifflin	32.96	34.78	45.17	35.07	37.00	57	8	20.0	29.0	13	25	4	13	20	42
Fort McHenry	35.21	40.36	43.85	38.75	39.54	52	17	12.5	22.5	10	39	25	30	7	7
Fort Monroe	43.08	45.05	50.26	47.04	46.36	68	18	21.7	28.3	16	35	29	70	13	23
Fort Moultrie	51.53	57.14	62.10	56.50	56.82	70	28	13.2	28.8	13	57	29	141	10	28
Fort Marion	59.50	65.57	67.50	62.28	63.70	81	47	17.3	16.7	21	51	18	36	15	21
Key West Barracks	71.43	74.85	77.93	73.85	74.52	81	64	6.5	10.5	23	91	15	57	44	172
Fort Myers	62.67	69.92	75.82	68.00	69.02	81	51	12.0	18.0	9	36	53	164	18	47
Barrancas Barracks	54.50	58.36	64.77	58.36	58.98	78	34	19.1	24.9	12	10	17	31	14	24
Mount Vernon Arsenal	51.39	55.60	64.82	56.35	57.04	78	32	21.0	25.0	9	32	24	60	14	35
New Orleans Barracks	54.61	60.14	67.48	56.93	59.79	82	34	22.3	25.7	17	41	19	39	30	61
Baton Rouge Barracks	50.21	58.03	64.46	55.92	57.16	88	27	30.9	30.1	29	55	10	27	10	24
Fort Towson	39.39	43.71	53.03	43.39	44.88	73	20	28.2	24.8	33	76	4	8	27	68
Fort Washita	38.42	43.07	51.57	43.64	44.18	74	20	29.9	24.1	25	84	5	10	21	53
Fort Gibson	36.75	41.32	50.14	40.85	42.27	75	19	32.8	23.2	35	91	11	35	6	24
Fort Scott	30.64	36.46	44.42	33.87	36.32	66	10	29.7	26.3	17	36	5	10	2	5
Jefferson Barracks	32.17	35.78	45.35	39.85	38.29	69	12	30.8	26.2	21	60	1	5	0	0
St. Louis Arsenal	30.39	34.39	45.00	35.46	36.31	66	9	29.7	27.3	12	17	3	6	6	6
Newport Barracks	39.10	41.21	47.28	43.89	42.87	62	20	19.2	22.8	34	91	3	3	3	6
Detroit Barracks	29.78	33.17	35.85	31.85	32.66	52	14	19.4	18.6	7	13	15	31	7	15
Fort Gratiot	25.17	30.00	33.53	29.50	29.55	49	10	19.5	19.5	20	37	9	23	9	15
Fort Mackinac	20.03	26.70	29.41	25.28	25.36	43	1	17.7	24.3	22	50	4	9	22	70
Fort Brady	16.92	23.14	27.82	19.96	21.96	46	— 8	26.1	29.9	7	20	3	5	29	66
Fort Howard	21.00	23.50	30.28	24.78	24.89	47	— 7	22.2	31.8	12	51	5	27	6	11
Fort Ripley	6.39	14.50	23.17	13.78	14.46	40	—34	25.6	48.4	11	27	14	28	5	9
Fort Snelling	15.92	20.25	29.42	22.01	22.10	50	—12	27.9	34.1	5	12	10	22	8	22
Fort Leavenworth	28.17	31.92	41.28	35.25	35.16	62	3	26.9	32.1	39	55	3	3	0	0
Fort Kearney	18.96	28.64	39.96	24.89	28.11	59	2	30.9	26.1	38	90	18	46	0	0
Fort Laramie	22.35	27.14	45.28	30.07	31.21	61	— 1	29.8	32.2	12	16	0	0	0	0
Fort Atkinson	25.54	32.96	47.62	32.87	34.75	69	9	34.3	26.7	27	..	13	..	0	..
Fort Arbuckle	37.75	42.30	51.82	40.57	43.11	70	19	26.9	34.1	6	21	1	4	11	16
Fort Worth	40.60	46.75	55.25	44.25	46.71	77	21	30.3	25.7	37	71	6	32	30	34
Fort Graham	43.60	48.46	58.71	48.89	49.92	76	28	26.1	21.9	0	0	26	56	15	25

MONTH OF FEBRUARY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	10	10	19	23	51	22	43	25	56	3.75	4.57	4.60	3.00	3.98	10	18	5	5	4.10	
2	2	4	7	14	29	35	66	11	21	4.64	4.43	5.28	5.78	5.03	14	14	4	5	5.80	
5	9	14	37	19	38	17	39	20	53	2.25	3.42	4.60	4.89	3.79	12	16	8	4	5.12	
13	27	10	21	19	50	28	79	26	111	3.93	4.00	4.94	5.36	4.56	13	15	8	3	5.68	
6	15	6	8	37	83	7	14	39	102	3.03	4.00	3.53	4.32	3.72	10	18	11	3	7.85?	
3	8	16	53	7	22	5	15	33	135	3.70	3.40	4.00	4.70	4.20	10	18	8	2	4.44	
9	11	13	27	15	31	15	19	20	46	3.82	4.10	4.57	4.71	4.30	11	17	8	3	4.50?	
5	11	37	84	11	17	3	5	29	95	2.64	3.28	3.07	4.25	3.31	10	18	9	3	5.09	
0	0	34	129	6	18	39	148	24	70	5.10	5.07	5.32	5.00	5.12	9	19	8	2	3.86	
2	10	51	79	15	17	11	18	7	15	3.06	7.12	7.14	5.35	5.67	11	17	5	2	1.99	
8	16	46	123	12	26	12	34	8	22	2.28	2.42	3.57	3.32	2.90	8	20	8	6	4.52	
36	67	0	0	31	39	0	0	29	73	5.39	5.25	6.85	5.07	5.64	15	13	6	3	2.31	
12	14	13	19	24	37	6	12	37	72	1.36	1.85	2.82	2.35	2.10	10	18	6	5	3.32	Inaccurate.
9	10	12	13	19	37	16	41	8	33	1.89	2.67	1.96	3.50	2.51	8	20	13	2	3.01	
9	13	14	31	5	9	41	96	12	52	4.71	4.53	6.28	5.85	5.34	14	14	8	1	3.00	
4	9	25	76	15	42	15	48	16	60	3.75	4.14	3.75	3.50	3.78	11	17	8	1	4.03	
23	50	4	8	10	23	2	4	31	89	3.00	4.50	5.35	3.50	4.09	13	15	8	0	2.90	
12	27	10	29	19	61	6	15	7	23	4.96	4.82	4.64	6.10	5.13	13	15	11	0	2.24	
12	40	9	38	24	80	5	14	10	33	4.85	5.07	5.10	6.03	5.26	16	12	8	0	2.51	
16	19	21	24	13	23	4	8	4	7	5.75	6.39	6.39	7.14	6.42	19	9	5	0	1.71	
22	73	5	14	0	0	3	3	0	0	6.43	5.93	5.25	6.60	6.05	22	6	6	0	0.88	
19	46	1	1	4	13	6	19	2	8	5.21	6.64	6.14	6.21	6.06	23	5	6	0	3.38	
23	59	14	18	10	14	2	3	20	32	1.55	1.46	2.38	3.16	2.14	15	13	8	0	8.03	Clearness inaccurate.
23	75	10	21	6	18	1	2	25	76	2.71	3.50	3.78	4.82	3.70	11	17	9	0	7.26	
8	15	18	40	12	29	7	11	1	2	3.57	3.56	3.10	4.18	3.60	10	18	10	0	3.18	
15	38	26	46	2	7	7	11	13	43	3.00	3.28	3.71	5.25	3.81	9	19	13	0	5.27	
10	19	17	30	0	0	15	21	6	18	2.60	3.25	3.71	4.57	3.53	10	18	12	1	11.09	
14	34	14	35	4	9	13	30	16	41	3.32	4.42	4.46	5.89	4.52	15	13	11	2	5.70	
8	30	12	36	9	23	4	11	27	68	3.67	3.85	4.25	5.50	4.32	11	17	7	5	10.42	
4	6	35	84	21	61	13	21	15	33	3.32	3.82	4.28	4.38	3.95	13	15	5	5	3.60	
27	70	31	62	16	46	4	11	12	47	3.67	4.10	4.39	5.07	4.31	12	16	8	4	5.05	
36	44	14	17	3	4	26	43	12	24	....	....	....	....	....	14	14	9	3	7.31	
6	10	17	34	20	54	16	34	13	30	....	....	....	....	....	13	15	8	2	13.91?	
4	8	4	9	27	55	32	67	12	24	2.10	2.64	2.03	3.03	2.70	7	21	9	7	3.68	
8	14	26	49	10	30	20	32	10	32	4.28	4.67	4.96	4.60	4.63	13	15	3	9	1.77	
3	6	15	37	9	22	30	73	7	18	....	....	....	....	....	11	17	8	7	0.59?	
9	17	9	20	22	62	20	75	13	38	3.14	3.60	3.41	2.39	3.13	8	20	2	8	1.28	
1	3	26	81	38	71	16	37	8	20	2.82	2.39	3.10	2.71	2.76	9	19	4	5	1.50	
23	39	19	29	6	9	21	48	13	34	5.53	5.10	6.00	6.35	5.75	16	12	0	6	0.24	
25	47	13	27	15	27	16	38	20	44	5.00	6.00	6.32	6.42	5.94	16	12	2	4	0.13	
4	5	41	62	19	32	2	2	4	6	4.03	4.82	4.39	4.85	4.52	14	14	4	2	0.96	
5	14	34	97	3	5	3	5	0	0	4.50	5.21	5.86	6.85	5.60	18	10	1	4	0.97	
0	0	1	1	3	3	75	133	20	32	7.50	8.57	8.50	8.71	8.32	24	4	0	2	....	
8	..	12	..	15	..	4	..	23	..	....	....	....	....	....	22	6	2	4	....	
27	44	23	53	9	26	13	24	11	33	4.50	5.00	5.00	4.40	4.72	14	14	8	2	5.40	
8	18	11	14	0	0	5	6	1	3	6.07	7.14	7.46	6.18	6.71	17	11	10	0	10.80	
3	5	1	5	34	68	9	16	22	61	1.60	3.92	4.89	4.14	3.64	12	16	12	0	6.86	

MONTH OF FEBRUARY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Gates	41.10	45.78	57.03	45.89	47.45	75	20	27.6	27.4	24	99	1	2	4	11
Fort Croghan	45.89	51.89	61.14	50.43	52.34	80	25	29.7	27.3	18	62	10	24	2	4
Fort Martin Scott	41.75	47.10	54.67	47.53	47.76	74	25	26.3	22.7	10	17	24	72	10	14
San Antonio	46.28	54.78	63.85	49.75	53.66	76	32	22.4	21.6	25	45	12	24	33	47
Fort Brown	60.71	67.53	69.96	62.64	65.21	84	36	18.8	29.2	27	63	16	27	23	40
Ringgold Barracks	53.88	63.77	73.00	61.50	63.04	88	44	25.0	19.0	14	56	13	48	20	50
Fort McIntosh	54.00	60.96	70.46	59.25	61.17	84	36	22.9	25.1	10	17	21	27	6	8
Fort Duncan	49.57	56.50	69.64	55.82	57.88	84	30	26.2	27.8	45	118	7	18	16	31
Fort Inge	49.25	58.21	65.17	55.82	57.11	89	30	31.9	27.1	0	0	39	112	3	3
Fort Lincoln	......	......	......	......	......	....	....	......	......	29	84	10	28	0	0
El Paso	32.00	54.00	64.00	47.00	49.25	74	26	24.8	23.2	0	0	15	40	4	9
Socorro	27.00	33.40	45.22	38.30	35.98	59	12	23.1	23.9	12	17	5	10	3	9
Albuquerque	25.64	36.03	48.35	34.25	36.07	59	7	23.0	29.0	15	22	10	32	1	5
Cebolletta	25.07	33.42	41.78	26.82	31.77	55	2	23.3	29.7	0	0	3	6	2	3
Las Vegas	15.25	33.42	41.67	22.17	28.10	48	—14	19.9	42.1	14	20	7	18	4	11
Santa Fé	22.90	33.40	48.40	31.90	34.15	62	— 2	27.9	36.1	18	24	16	17	1	1
Fort Yuma	37.36	57.14	72.03	46.07	53.15	82	19	28.9	34.1	47	95	16	25	2	2
San Diego	42.28	50.85	60.89	47.17	50.30	67	34	16.7	20.3	1	1	16	21	11	20
San Luis Rey	43.67	51.03	59.03	49.21	50.74	67	36	16.3	14.7	5	11	30	61	25	41
Sonoma	43.53	54.00	64.71	49.10	52.84	79	32	26.2	20.8	2	6	6	13	9	13
Benicia Barracks	43.14	51.12	61.03	45.04	50.08	74	32	24.0	18.0	3	4	0	0	4	5
Camp Far West	37.28	48.53	60.25	46.07	48.03	73	26	24.0	22.0	15	17	5	6	0	0
Astoria	40.07	42.64	51.85	39.92	43.62	69	31	26.4	12.6	0	0	7	14	30	36
Columbia Barracks	39.28	43.00	47.75	41.57	42.90	54	19	11.1	23.9	16	30	8	13	37	56
Dalles of the Columbia	36.17	40.92	47.82	40.62	41.39	61	29	19.7	12.3	11	11	7	7	2	3
Fort Steilacoom	36.50	39.57	46.71	40.39	40.79	56	24	14.3	16.7	9	29	0	0	36	124

MONTH OF FEBRUARY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	10	33	69	6	7	17	30	9	31	3.35	3.67	4.17	3.92	3.74	11	17	13	0	....	
21	55	27	77	3	4	15	25	13	19	3.86	3.87	4.39	4.32	4.11	12	16	12	0	5.01	
20	49	10	26	6	8	0	0	7	15	5.60	6.53	7.35	6.61	6.52	17	11	14	1	5.14	
7	11	16	20	5	6	5	8	4	6	....	....	....	....	....	16	12	6	1	6.86	
16	38	14	36	6	16	5	11	5	10	1.96	2.50	3.21	3.75	2.85	8	20	5	0	1.20	
13	44	27	94	4	13	0	0	7	27	1.82	3.03	3.89	3.90	3.16	7	21	4	0	0.69	Temp. for first 10 [days.
39	54	2	2	3	3	3	4	28	48	2.43	2.57	3.75	3.93	3.17	7	21	7	0	1.69	
13	29	22	49	3	8	3	7	3	6	4.96	5.71	7.10	7.03	6.20	18	10	5	0	2.32	
61	85	1	1	1	1	0	0	0	0	3.82	3.60	4.07	4.92	4.11	13	15	7	0	3.54	
32	75	41	92	0	0	0	0	0	0	5.25	6.03	5.71	4.35	5.34	17	11	9	0	5.05	
37	72	0	0	47	103	20	42	14	43	7.64	7.25	7.00	7.42	7.33	22	6	3	1	0.90	
8	15	7	16	5	13	17	30	47	69	7.00	7.16	6.24	6.16	6.64	24	4	5	3	0.45	
9	32	3	7	7	22	5	11	6	9	6.00	6.46	7.14	6.46	6.51	18	10	6	3	0.56	
5	7	10	10	50	69	24	41	4	7	7.20	7.25	7.14	3.28	6.22	15	13	2	6	2.11	
5	9	10	15	10	16	3	6	13	24	....	....	....	....	....	16	12	0	8	4.23?	Inaccurate.
15	17	1	1	13	23	1	1	29	37	6.70	5.80	6.40	7.15	6.51	16	12	0	10	0.24	
2	4	10	26	3	10	9	17	12	25	8.32	8.17	7.72	9.32	8.38	23	5	1	0	0.01	
14	17	5	8	42	77	6	19	7	10	5.50	5.92	6.60	5.96	6.00	16	12	8	0	1.52	
6	16	0	0	8	20	28	82	6	17	6.00	6.00	7.00	7.10	6.52	19	9	7	0	0.95	
1	1	5	8	5	7	16	24	5	11	4.92	5.00	7.00	8.64	6.39	17	11	4	0	0.89	
1	2	10	14	40	86	20	23	2	7	8.35	8.33	9.67	9.71	8.91	23	5	3	0	0.23	
29	41	8	11	1	1	3	3	45	89	7.60	7.64	7.28	8.03	7.64	27	4	5	0	1.16	
13	18	2	2	20	35	10	19	20	33	1.10	1.39	2.50	2.75	1.94	7	21	20	1	10.95?	
9	21	0	0	2	7	35	75	2	7	1.71	4.29	6.53	0.14	3.17	12	16	12	2	2.04	
0	0	15	18	3	6	41	66	0	0	2.28	3.28	3.78	5.53	3.72	8	20	6	1	1.70?	
0	0	0	0	38	154	0	0	29	98	2.17	1.82	2.32	3.80	2.53	5	23	14	0	1.47	Winds inaccurate.

MONTH OF MARCH, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	27.35	32.13	35.54	31.71	31.68	50	7	18.4	24.6	9	12	13	50	11	41
Fort Preble	28.87	32.96	37.77	33.61	33.30	59	10	25.7	23.3	32	98	10	37	4	12
Fort Constitution	29.54	34.41	41.61	34.38	34.98	68	10	33.1	24.9	25	62	9	27	19	74
Fort Adams	34.84	37.87	42.39	39.13	38.56	56	20	17.5	18.5	11	42	14	75	3	7
Fort Trumbull	35.19	40.32	45.03	38.09	39.28	68	23	28.8	16.2	3	9	23	106	3	9
Fort Hamilton	37.00	39.30	46.30	40.30	40.72	61	26	20.3	14.7	12	29	17	49	7	20
Fort Columbus	34.93	39.83	45.96	38.12	39.71	68	23	28.3	16.7	18	37	6	16	15	37
West Point	32.74	38.00	44.81	39.00	38.64	74	22	35.4	16.6	22	66	6	17	0	0
Watervliet Arsenal	34.06	37.96	41.29	36.09	37.35	60	18	22.7	19.3	15	44	0	0	0	0
Plattsburg Barracks	24.61	29.16	37.77	30.64	30.28	59	1	28.8	29.2	14	16	12	16	0	0
Madison Barracks	29.12	35.03	40.58	32.61	34.34	66	12	31.7	22.3	4	11	21	40	12	19
Fort Ontario	31.12	34.74	39.41	33.58	34.71	72	16	37.3	18.7	0	0	22	44	0	0
Fort Niagara	31.16	36.03	40.29	34.58	35.52	70	20	34.5	25.5	1	3	31	50	6	7
Alleghany Arsenal	35.77	41.90	51.83	40.41	42.48	74	22	31.6	20.4	8	18	22	23	9	15
Carlisle Barracks	33.80	41.61	50.45	40.00	41.47	73	23	31.6	18.4	7	21	2	5	34	65
Fort Mifflin	35.03	43.83	50.53	37.93	41.84	76	25	34.2	16.8	20	63	4	21	26	80
Fort McHenry	42.64	46.32	53.67	45.58	47.05	73	33	26.0	14.0	12	33	33	98	10	14
Fort Monroe	45.00	47.14	55.04	50.10	49.32	76	35	26.7	14.3	1	3	20	45	30	77
Fort Moultrie	54.54	62.16	66.06	60.70	60.87	75	40	14.2	20.8	6	23	11	31	9	26
Fort Marion	57.70	66.64	70.00	62.93	64.32	85	46	20.7	18.3	26	40	16	28	28	56
Key West Barracks	71.26	74.32	77.29	73.22	74.02	83	59	9.0	15.0	12	62	23	102	40	107
Fort Myers	62.35	70.09	77.38	69.74	69.89	82	53	12.2	16.8	13	43	19	58	17	43
Fort Barrancas	54.16	60.77	68.13	60.68	60.94	76	36	15.1	24.9	15	17	16	27	7	19
Mount Vernon Arsenal	51.93	54.96	69.54	60.06	59.12	82	34	12.0	25.1	31	52	21	21	18	21
New Orleans Barracks	52.55	63.53	72.42	58.06	61.64	84	37	22.4	24.6	16	33	15	28	45	86
Baton Rouge Barracks	49.93	65.50	73.16	56.09	61.17	90	30	38.9	41.1	24	44	15	22	18	29
Fort Towson	46.58	55.70	66.96	55.74	56.25	78	22	29.8	34.2	20	53	4	11	33	37
Fort Washita	47.67	55.67	65.12	59.06	56.88	82	27	25.2	29.8	11	26	13	38	14	26
Fort Gibson	44.74	53.45	65.32	52.83	54.09	95	23	40.0	31.0	30	64	13	25	3	10
Fort Scott	38.32	49.58	58.00	47.09	48.14	79	20	30.9	28.1	17	32	15	19	6	11
Jefferson Barracks	40.16	47.32	56.06	49.00	48.13	76	21	27.9	27.1	21	46	1	1	7	17
St. Louis Arsenal	38.48	46.00	55.61	45.20	46.32	77	19	30.7	27.3	28	35	1	1	14	14
Newport Barracks	41.61	48.36	54.32	49.90	48.55	76	26	27.5	22.5	30	90	6	15	1	2
Detroit Barracks	32.64	39.67	47.06	38.09	39.36	71	12	32.7	27.3	5	8	27	56	7	11
Fort Gratiot	28.96	36.00	41.22	34.19	35.09	72	10	37.0	25.0	20	55	8	10	14	24
Fort Mackinac	23.51	33.32	36.10	27.90	30.21	52	8	21.8	22.2	30	55	3	7	43	..
Fort Brady	20.22	30.80	38.13	25.32	28.64	48	— 6	19.4	34.6	4	13	7	10	25	63
Fort Howard	26.67	32.87	42.06	32.29	33.47	69	4	35.6	29.4	26	64	6	9	2	3
Fort Ripley	20.32	32.70	43.87	28.38	31.32	68	— 6	36.7	37.3	18	60	14	35	6	8
Fort Snelling	31.32	38.51	48.51	39.16	39.37	76	7	36.7	32.3	8	18	16	37	9	22
Fort Leavenworth	38.61	44.51	56.77	48.54	47.11	80	22	32.9	25.1	39	53	10	13	6	8
Fort Laramie	32.38	36.64	56.44	38.40	41.00	70	15	29.0	26.0	10	29	2	4	3	7
Fort Atkinson	34.62	48.03	64.11	44.56	47.83	85	15	37.2	32.8	23	..	16	..	2	..
Fort Arbuckle	44.30	54.83	66.00	53.35	54.62	82	21	27.4	33.6	2	4	1	4	1	3
Fort Worth	46.80	57.70	66.25	55.80	56.64	83	25	27.4	21.6	35	48	8	10	38	104
Fort Graham	49.22	57.25	70.00	56.87	58.38	91	25	33.7	33.3	6	27	18	39	6	10
Fort Gates	48.87	55.67	70.12	58.90	58.39	86	14	27.7	48.3	17	50	1	3	0	0

MONTH OF MARCH, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	11	14	37	19	47	27	48	25	47	3.83	4.77	4.80	0.32	3.43	13	18	4	7	4.60	
2	3	5	9	16	46	30	58	25	41	5.32	4.76	5.41	5.58	5.27	16	15	2	7	2.45	
2	6	15	41	7	19	28	62	19	52	2.00	3.38	3.61	4.00	3.24	10	21	2	7	0.55	
6	15	27	79	15	45	22	60	26	96	3.68	4.06	4.22	5.22	4.29	14	17	4	5	1.41	
5	11	4	5	32	81	8	21	46	105	3.09	3.70	4.35	4.80	3.73	14	17	6	5	4.11	
2	5	9	25	22	92	9	33	46	189	4.30	4.80	4.70	5.60	4.85	18	13	4	4	3.88	
9	30	4	11	21	50	18	34	33	78	5.29	6.00	5.61	5.64	5.63	19	12	6	3	1.70	
7	18	31	78	5	12	10	18	43	123	3.45	3.52	3.68	4.06	3.67	13	18	5	8	2.56	
0	0	39	163	1	3	54	200	15	52	5.29	5.70	6.06	5.61	5.66	15	16	2	10	0.97	
4	4	60	96	16	22	9	11	9	13	3.09	6.12	4.03	3.58	4.20	14	17	3	5	2.03	
7	19	27	64	17	39	27	54	9	23	3.48	3.67	3.80	3.54	3.62	13	18	5	9	4.33	
24	37	0	0	33	59	0	0	45	98	6.54	7.12	6.74	6.96	6.84	16	15	2	5	3.99	Clearness inaccurate.
8	19	11	20	22	44	13	27	33	92	1.55	2.16	4.00	4.41	3.03	12	19	3	6	0.37?	
1	2	6	16	40	91	9	19	29	70	2.26	3.35	4.67	6.09	4.09	16	15	10	4	1.43	
0	0	16	41	0	0	57	152	8	34	7.12	7.09	7.80	7.22	7.30	15	16	8	3	2.35	
6	19	17	54	20	67	18	64	13	49	4.61	4.83	4.38	5.61	4.85	18	13	6	3	5.60	
3	7	3	5	20	57	18	46	25	82	4.64	5.54	6.74	4.77	5.42	18	13	7	3	5.90	
7	17	6	14	19	50	25	58	16	44	5.64	5.38	5.32	6.06	5.60	17	14	8	2	2.23	
26	92	20	67	11	41	6	25	35	142	5.29	5.80	5.93	6.06	5.77	17	14	9	0	1.93	
12	38	7	19	13	25	14	18	8	18	5.51	7.29	6.90	7.83	6.88	20	11	6	0	0.93	
27	98	11	33	4	5	4	6	3	14	4.58	5.13	5.60	6.93	5.56	20	11	5	0	1.50	
25	64	5	13	17	49	9	28	19	65	6.51	7.25	7.48	7.54	7.19	26	5	6	0	2.09	
22	78	5	17	17	36	0	0	32	46	1.10	1.13	1.65	4.39	2.07	13	18	4	0	0.60	Clearness inaccurate.
11	14	18	22	6	11	4	6	15	23	5.35	5.67	6.35	6.83	6.05	17	14	8	0	0.77	
7	12	12	26	7	11	13	22	9	18	5.74	4.74	4.03	6.87	5.34	15	16	5	0	1.20	
23	51	18	29	2	4	8	12	16	48	4.48	5.35	5.90	7.66	5.85	18	13	6	0	1.54	
8	17	24	61	1	4	14	34	6	12	3.58	4.12	4.58	6.16	4.61	15	16	6	2	2.66	
20	51	23	53	13	36	17	35	12	31	4.12	4.83	4.96	6.35	5.06	17	14	6	0	1.35	
4	14	13	49	18	53	11	24	26	72	4.35	5.38	6.16	6.83	5.68	19	12	4	0	1.50	
16	29	26	94	18	47	4	16	22	56	4.45	4.35	4.83	6.48	5.03	14	17	6	1	0.48	
11	23	40	133	7	22	10	42	27	88	5.16	5.80	5.19	6.61	5.69	17	14	7	0	1.86	
2	3	34	53	6	7	17	30	13	31	....	....	....	....	....	15	16	6	0	1.75	
1	2	30	60	14	25	23	55	14	41	4.30	5.00	6.30	5.10	5.17	17	14	6	1	10.09?	
2	2	5	19	15	35	37	99	15	28	4.67	4.70	5.45	5.74	4.14	18	13	3	5	1.37	
5	16	21	56	6	13	34	63	15	33	4.80	5.32	5.35	4.90	5.09	15	16	3	6	1.25	
7	17	6	13	4	8	25	70	2	5	....	....	....	....	....	13	18	4	4	0.41?	
16	43	10	14	25	62	25	73	12	33	4.32	4.64	4.74	3.06	4.19	13	18	4	6	0.84	
3	11	30	84	18	36	19	53	16	28	5.12	4.16	4.83	6.36	5.12	16	15	5	5	0.78	
24	57	13	18	8	10	16	45	15	28	6.74	7.00	7.25	8.58	7.39	19	12	2	3	0.26	
23	65	17	48	23	42	4	9	21	56	5.80	7.25	7.61	7.51	7.04	23	8	2	5	1.23	
1	2	35	58	22	54	1	3	7	10	5.35	4.74	5.51	6.96	5.64	15	18	6	0	1.03	
0	0	1	2	14	19	83	150	11	17	7.38	7.40	7.74	8.55	7.47	23	8	1	3	0.14	
17	..	30	..	9	..	5	..	14	..	....	....	....	....	....	20	11	3	0	....	
12	51	31	58	30	46	33	70	8	22	4.45	6.19	6.32	6.00	6.00	18	13	3	0	0.20	
10	32	4	12	0	0	0	0	4	12	6.87	7.32	8.45	8.03	7.67	20	11	4	0	4.66	
28	55	7	22	40	96	2	6	14	40	1.90	4.25	5.96	6.83	4.74	19	12	8	0	3.63	
9	26	71	160	2	4	10	15	11	23	4.48	5.12	4.83	5.96	5.10	15	16	5	0	....	

MONTH OF MARCH, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Croghan	49.84	60.29	72.20	57.71	60.01	88	25	28.0	35.0	17	46	4	18	5	10
Fort Martin Scott	47.25	56.64	65.54	49.96	54.10	76	24	21.9	30.1	32	73	1	3	0	0
San Antonio	50.90	61.61	73.83	57.00	60.83	84	29	23.2	31.8	24	41	13	22	22	29
Corpus Christi	64.15	70.97	77.53	67.27	69.98	84	51	14.1	18.9	3	7	3	7	12	25
Fort Brown	59.16	67.67	73.93	66.00	66.69	86	42	19.4	24.6	7	13	27	35	38	53
Ringgold Barracks	60.69	73.11	85.51	70.70	72.50	98	37	27.5	35.5	10	30	2	7	34	103
Fort McIntosh	54.03	70.32	81.19	66.13	67.92	100	33	32.1	34.9	7	8	23	29	16	18
Fort Duncan	51.00	64.27	80.00	64.77	65.01	88	24	23.0	41.0	17	34	10	25	16	37
Fort Inge	48.77	61.32	77.16	61.48	62.18	86	26	23.9	36.1	5	13	31	43	17	32
Fort Lincoln	......	......	......	......	......	....	....	......	......	16	45	7	13	5	9
El Paso	43.45	68.00	76.00	54.00	60.36	86	32	25.7	28.3	0	0	9	28	18	50
Albuquerque	30.90	47.93	66.90	43.32	47.26	77	12	29.8	35.2	12	15	7	13	3	8
Cebolleta	33.19	47.32	58.12	36.41	43.76	73	20	29.3	23.7	6	16	8	10	0	0
Las Vegas	25.00	31.09	45.87	30.80	33.19	72	14	39.9	19.1	8	17	6	7	10	17
Fort Yuma	43.87	72.03	83.70	50.97	62.64	92	32	29.4	32.6	24	34	26	41	17	20
San Diego	45.07	57.07	67.17	51.44	55.19	82	34	36.9	21.1	3	4	17	20	11	15
San Luis Rey	46.61	55.29	62.64	52.78	54.33	80	39	25.7	15.3	1	2	12	22	23	31
Sonoma	42.40	56.35	64.09	49.23	53.04	82	32	29.0	21.0	3	6	0	0	0	0
Benicia Barracks	45.19	54.14	64.27	50.07	55.42	79	38	23.6	17.4	0	0	0	0	9	10
Camp Far West	41.48	53.90	65.48	49.61	52.62	78	33	22.4	19.6	2	3	2	3	0	0
Astoria	41.54	45.29	52.54	43.54	45.73	58	32	12.3	21.7	0	0	14	21	33	55
Columbia Barracks	38.90	45.10	54.32	42.83	45.29	68	27	22.8	18.2	9	23	6	13	43	78
Dalles of the Columbia	36.35	46.00	58.64	45.77	46.69	69	25	22.4	21.6	0	0	0	0	4	4
Fort Steilacoom	37.16	41.64	51.41	42.48	43.17	60	26	16.9	17.1	27	..	6	...	18	..

MONTH OF MARCH, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	21	55	145	5	5	13	16	15	18	5.23	5.52	5.40	6.77	5.73	18	13	5	0	3.54	
32	97	37	70	12	13	0	0	8	30	5.47	6.77	8.09	8.58	7.23	22	9	8	0	3.48	
23	32	22	28	7	7	5	5	1	1	....	....	....	....	....	18	13	4	0	1.45	
34	71	3	4	6	10	1	1	1	2	1.53	1.77	2.59	3.00	2.50	5	12	2	0	1.00	Last 17 days.
21	44	15	27	5	8	7	11	4	8	3.45	3.70	4.22	4.61	4.00	12	19	2	0	0.40	
37	138	26	106	0	0	1	3	5	15	4.29	4.87	5.35	7.06	5.16	17	14	4	0	0.03	
62	90	3	3	0	0	2	2	9	19	4.84	5.58	6.32	7.18	5.98	19	12	3	0	0.95	
32	74	39	77	5	14	4	8	1	2	6.00	7.45	7.67	7.61	7.18	22	9	3	0	0.23	
29	45	7	11	4	12	0	0	4	9	4.58	4.77	5.22	5.25	4.96	16	15	5	0	1.45	
70	160	21	50	4	12	1	1	0	0	6.80	7.03	7.45	6.22	6.87	23	8	3	0	2.11	
0	0	0	0	24	64	38	100	27	72	....	....	....	....	....	..	..	..	..	....	Inaccurate.
10	39	1	4	16	32	0	0	7	20	6.70	8.00	7.03	7.12	7.21	23	8	3	0	0.42	
0	0	5	10	50	79	45	87	6	6	7.54	7.09	7.41	2.77	6.20	22	9	1	2	0.10	
6	9	8	9	13	37	4	10	8	18	6.96	9.29	9.25	3.80	7.32	18	13	0	1	0.01	
1	3	2	4	6	17	20	60	20	40	7.64	7.29	7.48	8.80	7.80	25	6	0	0	0.00	
15	18	10	13	33	78	18	50	9	23	5.22	5.48	6.00	6.58	5.82	20	11	4	0	0.34	
5	5	0	0	8	23	42	76	14	36	5.68	6.13	6.45	7.23	6.37	21	10	2	0	0.21	
2	9	3	8	20	63	26	66	41	98	5.87	6.70	6.80	7.09	6.61	22	9	10	0	4.44	
7	14	21	27	64	188	17	17	0	0	8.15	8.04	7.17	7.20	7.64	23	8	8	0	5.83	
60	104	6	6	7	13	8	9	23	26	6.16	6.38	6.32	7.61	6.62	22	9	11	0	3.44	
14	16	0	0	24	27	18	26	15	27	2.29	2.84	4.51	4.13	3.44	11	20	19	0	6.10?	
5	11	1	1	7	14	51	100	3	5	3.38	4.70	5.60	3.00	4.17	13	18	16	0	4.08	
0	0	14	16	24	32	37	68	1	1	3.70	3.42	4.29	5.30	4.18	13	18	9	1	1.79	
0	..	0	..	44	..	0	..	29	..	1.74	1.77	2.96	4.38	2.71	8	23	15	0	2.20	

MONTH OF APRIL, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	36.23	42.70	47.70	40.46	41.77	60	25	19.3	16.7	23	39	32	97	13	48
Fort Preble	38.26	43.46	46.86	41.80	42.60	60	27	17.4	15.6	37	117	19	64	10	30
Fort Constitution	35.96	43.36	48.50	40.56	42.09	68	26	26.0	16.0	22	48	11	23	24	110
Fort Adams	42.43	46.63	50.26	46.03	46.33	60	30	13.7	16.3	19	87	19	102	8	21
Fort Trumbull	43.20	48.40	52.30	45.30	47.30	63	31	15.7	16.3	4	9	42	157	2	4
Fort Hamilton	43.90	47.60	54.50	49.80	48.95	68	34	19.1	14.9	25	81	12	36	12	34
Fort Columbus	43.53	49.30	55.13	48.56	49.13	67	34	17.9	15.1	13	32	36	84	5	10
West Point	40.40	46.67	53.17	47.17	46.85	68	32	21.2	14.8	29	96	5	9	0	0
Watervliet Arsenal	39.23	45.83	52.56	45.03	45.66	64	28	18.4	17.6	39	131	4	11	3	10
Plattsburg Barracks	37.70	41.53	49.10	41.50	42.08	60	25	18.0	17.0	4	6	19	34	4	6
Madison Barracks	37.66	43.46	46.46	40.13	41.93	60	24	18.1	17.9	5	12	37	72	8	13
Fort Ontario	40.76	44.03	44.56	39.13	42.12	62	30	19.9	12.1	0	0	39	79	0	0
Fort Niagara	37.70	41.83	46.26	41.36	41.79	64	27	22.3	14.7	1	1	38	93	14	25
Alleghany Arsenal	40.56	49.33	57.76	47.33	48.75	75	32	26.3	16.7	18	26	21	50	8	15
Carlisle Barracks	41.30	50.83	58.60	48.33	47.61	76	28	28.4	19.6	8	17	7	11	22	50
Fort Mifflin	42.36	52.66	59.63	48.00	50.66	72	30	21.4	20.6	29	106	8	18	16	49
Fort McHenry	51.53	54.76	58.30	54.33	54.73	69	40	14.3	14.7	25	58	21	51	6	14
Fort Washington	47.63	59.63	67.27	51.54	56.52	79	38	22.5	18.5	..	..	..	..	..	..
Fort Monroe	48.00	55.15	59.15	55.21	54.38	77	42	22.7	12.3	14	35	18	42	23	68
Fort Moultrie	59.70	67.03	72.16	65.10	66.00	83	46	17.0	20.0	8	34	23	104	2	5
Fort Marion	64.36	71.26	73.63	68.03	69.32	86	53	16.7	16.3	5	7	13	40	32	65
Key West Barracks	74.17	77.63	81.00	75.93	77.18	87	66	19.9	11.1	10	36	1	1	39	123
Fort Myers	66.60	74.36	81.00	73.56	73.88	87	55	13.2	18.8	4	13	14	41	6	13
Fort Brooke	69.00	73.77	74.22	72.11	72.27	79	64	6.8	8.2	0	0	2	6	10	16
Barrancas Barracks	62.48	68.57	73.97	66.80	67.96	80	48	12.1	20.9	17	32	19	38	0	0
Mount Vernon Arsenal	60.96	67.33	76.93	64.86	67.52	88	42	20.5	25.5	25	40	21	26	7	8
New Orleans Barracks	60.95	70.83	76.85	64.33	68.24	90	48	21.8	20.2	15	34	19	33	32	58
Baton Rouge Barracks	57.33	71.36	77.53	63.06	67.32	96	44	28.7	23.3	38	78	29	54	15	31
Fort Towson	51.30	60.93	70.23	59.06	60.38	87	36	26.7	24.3	42	92	4	8	42	75
Fort Washita	52.23	62.00	70.43	58.70	60.84	94	37	33.2	23.8	34	108	8	16	19	53
Fort Gibson	49.33	60.26	68.66	54.67	58.23	92	31	33.8	27.2	35	58	8	7	11	21
Fort Scott	42.16	55.70	63.93	52.06	53.46	82	22	29.6	31.4	23	43	18	29	6	11
Jefferson Barracks	43.83	50.70	58.09	50.64	50.83	82	34	31.2	16.8	14	40	7	13	14	22
St. Louis Arsenal	42.60	52.73	57.47	49.63	50.61	76	32	25.4	18.6	33	50	3	5	17	20
Newport Barracks	46.20	51.50	59.97	55.61	53.32	74	36	20.7	17.3	45	125	9	19	8	15
Detroit Barracks	36.06	47.56	52.93	42.23	44.69	74	26	29.4	18.6	11	16	35	74	17	42
Fort Gratiot	34.46	43.26	46.70	38.90	40.83	71	25	30.2	15.8	24	75	17	46	23	30
Fort Mackinac	30.23	39.43	41.86	33.53	36.26	60	14	23.8	22.2	23	51	10	22	38	132
Fort Brady	32.26	40.83	45.50	34.20	38.20	60	18	21.8	20.2	4	9	7	20	37	108
Fort Howard	32.26	40.80	47.80	39.00	39.96	73	20	33.1	19.9	32	88	15	43	9	30
Fort Ripley	31.10	41.66	48.43	38.00	39.82	76	22	36.2	17.8	25	59	24	55	1	2
Fort Snelling	37.30	50.43	60.96	51.86	50.14	79	20	27.9	30.1	23	58	20	56	6	13
Fort Leavenworth	43.00	47.56	59.43	50.80	50.20	72	25	21.8	25.2	43	57	29	36	0	0
Fort Kearney	34.36	47.46	58.13	42.36	45.58	73	24	27.5	21.5	38	134	22	60	1	1
Fort Laramie	36.36	44.03	63.26	46.16	47.45	81	15	33.6	32.4	7	16	3	3	11	19
Fort Atkinson	39.84	52.98	64.65	48.44	51.48	84	23	32.6	28.4	30	..	28	..	2	..
Fort Arbuckle*	47.95	58.34	66.76	54.77	56.96	82	32	25.1	24.9	2	7	7	19	8	18

* A change of location occurs on the 15th, the post being removed 15 miles southwestward. The general topography remains the same, and the records are used as for the same locality.

MONTH OF APRIL, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	3	11	29	6	9	11	17	22	31	4.30	5.10	5.50	3.50	4.60	12	18	10	2	3.20	
11	27	6	18	4	9	17	39	16	29	5.66	5.20	4.83	4.60	5.07	15	15	9	3	7.35	
8	20	21	45	6	16	9	21	19	38	3.46	4.83	4.76	3.70	4.18	13	17	8	2	7.13	
11	27	19	54	12	24	25	65	7	23	4.73	4.33	4.32	4.20	4.39	15	15	11	0	7.96	
12	32	2	4	17	41	9	13	32	69	4.43	4.50	4.06	4.93	4.48	12	18	10	2	12.60?	
9	23	10	29	18	17	4	13	30	127	5.30	4.40	4.30	4.70	4.67	14	16	11	2	5.32	
7	15	15	52	13	32	8	13	23	48	5.30	5.86	5.36	5.20	5.43	16	14	12	1	6.94	
12	23	18	50	10	21	1	2	45	107	3.44	3.93	3.27	4.57	3.80	12	18	11	2	7.24	
8	25	20	61	5	14	24	69	17	54	5.70	5.83	5.46	4.60	5.39	17	13	10	3	3.53	
1	2	28	47	24	28	25	35	5	9	4.23	4.83	5.13	5.80	4.99	15	15	5	2	1.61	
3	7	10	45	18	57	27	65	12	33	4.46	4.53	4.40	5.03	4.60	12	18	12	2	3.95	
17	25	0	0	20	32	0	0	44	91	7.66	8.01	6.03	6.20	6.97	14	16	6	1	1.91	Weather inaccurate.
15	33	2	2	13	29	7	18	30	80	1.50	3.40	3.73	2.93	2.89	11	19	12	1	2.01	
6	10	11	14	13	25	18	69	25	64	3.63	3.79	3.00	4.36	3.62	10	20	14	2	2.83	
10	31	10	20	0	0	44	110	19	61	6.90	6.76	7.16	6.63	6.86	16	14	9	1	4.76	
18	75	12	44	8	29	13	42	16	56	4.50	4.60	4.16	4.96	4.55	14	16	8	0	3.55	
20	43	8	20	12	26	14	23	14	49	3.76	4.70	4.56	3.90	4.23	14	16	11	1	4.70	Therm. protected
..	..	..	..	..	..	..	..	..	..	3.72	4.63	4.36	6.63	4.84	6	5	3	0	0.08	Last 11 days.
19	46	8	20	7	15	8	18	23	63	4.26	4.43	3.86	4.26	4.20	13	17	10	0	1.33	
16	55	5	23	21	90	9	32	36	141	4.76	5.83	5.36	6.33	5.57	17	13	11	0	1.65	
9	23	17	19	10	19	31	52	2	6	5.66	6.02	6.36	8.00	6.51	20	10	7	0	2.68	
26	88	16	44	11	24	1	2	16	87	6.30	6.43	6.26	7.67	6.66	24	6	3	0	1.80	
20	38	8	18	25	64	23	72	20	65	6.43	7.53	6.90	6.33	6.79	23	7	5	0	4.57	
9	18	3	5	11	31	0	0	0	0	6.66	6.88	6.67	5.88	6.52	8	2	..	..	....	Last 10 days.
16	74	5	10	19	69	3	10	41	87	1.33	1.23	1.57	4.07	2.05	14	16	8	0	4.52	Clearness inaccurate.
13	20	17	31	4	10	3	4	30	68	4.63	5.70	5.02	5.26	5.15	17	13	7	0	1.14	
2	4	15	30	8	17	13	16	16	32	4.33	3.66	4.30	6.80	4.77	14	16	11	0	5.49	
11	25	7	14	8	14	8	11	4	13	4.40	4.41	5.16	7.03	5.50	15	15	7	0	2.26	
0	0	8	12	1	3	20	22	0	0	3.40	4.26	4.86	6.20	4.68	13	17	10	0	2.52	
13	24	10	23	6	11	16	28	14	27	4.73	4.93	4.72	4.53	4.73	16	14	8	0	2.95	
7	14	9	19	21	56	11	20	18	40	5.70	5.80	5.56	6.33	5.85	16	14	4	0	0.50	
11	20	19	40	8	24	13	22	22	47	5.03	4.70	4.06	5.60	4.85	14	16	5	1	0.75	
10	33	31	65	3	7	16	54	25	70	4.10	4.77	4.10	5.17	4.54	13	17	9	0	2.80	
6	6	10	11	8	12	33	67	8	20	....	....	....	....	....	15	15	8	0	3.30	
0	0	32	71	10	35	6	18	11	52	....	....	....	....	....	14	16	7	0	3.41	Therm. protected.
2	3	0	0	7	16	36	82	5	9	5.00	5.36	4.60	5.13	5.02	16	14	11	2	3.70	
12	22	10	27	4	10	24	61	6	16	4.63	5.30	5.06	4.66	4.91	14	16	6	5	2.51	
7	17	9	20	9	24	17	50	7	19	....	....	....	....	....	13	17	7	5	0.68?	
13	58	1	4	17	56	36	117	5	16	3.96	4.10	4.43	3.26	3.69	10	20	6	8	2.23	Inaccurate.
7	13	22	40	10	19	20	59	5	12	4.25	4.25	5.16	4.10	4.44	13	17	9	3	1.58	
16	37	13	33	11	17	17	55	13	31	5.50	5.40	5.60	5.90	5.60	16	14	6	5	0.97	
12	22	7	16	28	89	3	6	21	45	5.60	6.10	6.20	7.40	6.32	18	12	7	5	2.68	
2	2	19	20	14	23	2	3	9	12	5.06	4.80	3.70	5.70	4.81	13	17	6	2	1.00	
18	48	11	40	0	0	5	9	3	12	4.56	4.33	5.83	6.36	5.27	14	16	7	3	0.73	
2	4	11	16	6	6	52	88	13	27	7.36	8.36	8.06	8.03	7.95	20	10	1	4	0.16	
9	..	22	..	4	..	0	..	9	..	....	....	....	....	....	23	7	6	1	....	[omitted.
10	16	14	28	24	38	23	55	5	12	....	....	....	....	....	17	9	5	0	2.71	4 days, 16th to 19th,

MONTH OF APRIL, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	51.56	62.86	71.83	58.16	61.10	92	38	30.9	23.1	65	80	11	14	38	60
Fort Graham	55.10	61.43	73.06	61.16	62.69	92	42	29.4	20.6	10	25	43	101	4	5
Fort Gates	55.66	62.43	70.19	62.70	62.75	89	47	26.3	15.7	24	66	8	27	8	11
Fort Croghan	55.47	64.03	73.53	61.83	63.72	91	44	27.3	19.7	18	38	26	66	10	27
Austin	56.23	64.53	73.88	62.63	64.31	90	46	25.7	18.3	2	6	19	54	7	18
Fort Martin Scott	54.16	60.90	69.70	63.56	62.08	82	42	20.0	20.0	13	46	45	101	0	0
San Antonio	57.96	66.30	74.70	65.30	66.06	87	50	21.0	16.0	23	30	9	15	45	50
Fort Merrill	62.80	69.43	77.53	68.30	69.57	92	49	22.5	20.5	8	36	12	34	21	44
Corpus Christi	66.95	72.85	75.37	69.77	71.23	89	55	27.8	16.2	10	43	25	90	23	49
Fort Brown	69.53	78.66	82.13	70.40	75.18	88	54	22.9	21.1	7	15	16	33	37	89
Ringgold Barracks	68.06	78.46	88.40	75.26	77.55	104	58	26.5	19.5	9	33	9	32	33	110
Fort McIntosh	64.43	75.93	85.87	73.00	74.81	103	49	28.2	25.8	11	15	41	60	23	27
Fort Duncan	66.83	72.38	83.20	74.18	74.15	93	58	18.9	16.1	18	39	12	28	31	73
Fort Inge	59.16	67.03	77.56	65.23	67.25	90	43	22.8	24.2	3	4	15	51	24	61
Fort Lincoln	......	......	......	......	......	....	....	......	......	25	68	11	25	2	2
El Paso	65.23	80.00	85.63	66.00	74.31	94	52	19.7	22.3	0	0	12	31	6	19
Socorro	46.20	53.20	79.20	58.90	59.37	86	32	26.7	27.3	6	7	5	28	9	12
Albuquerque	35.16	58.60	65.83	52.43	53.01	75	23 ?	22.0	30.0	7	11	2	9	9	49
Cebolletta	41.20	55.93	66.53	47.93	52.90	83	25	30.1	27.9	8	12	5	6	1	2
Las Vegas	38.50	54.33	57.66	41.23	47.93	70	30	22.1	17.9	5	12	5	22	7	19
Santa Fé	34.20	53.10	65.80	44.50	49.40	78	20	28.6	29.4	4	5	34	49	10	33
Fort Yuma	57.20	72.33	89.20	73.06	72.95	100	54	27.1	19.9	9	14	5	7	7	9
San Diego	......	......	......	......	......	....	....	......	......	1	1	8	9	7	10
Sonoma	46.37	61.03	69.37	53.13	57.47	92	38	34.6	19.4	0	0	2	4	4	12
Benicia Barracks	52.20	59.96	72.53	55.80	60.12	98	43	37.9	17.1	0	0	1	4	10	17
Camp Far West	48.56	64.76	72.10	57.96	60.84	92	38	31.2	22.8	5	6	3	4	0	0
Astoria	48.06	53.36	58.23	51.40	52.76	82	42	29.3	10.7	0	0	9	17	18	41
Fort Steilacoom	44.36	50.93	60.03	50.66	51.49	74	31	22.6	20.4	0	—	8	—	30	—

MONTH OF APRIL, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	7	2	7	0	0	0	0	2	9	7.03	7.53	8.06	6.53	7.29	22	8	8	0	6.61	
2	6	0	0	43	65	5	9	13	25	1.73	4.43	6.06	6.07	4.57	16	14	13	0	7.88	
1	4	44	78	6	9	7	9	13	40	4.06	4.76	5.46	5.53	4.95	15	15	11	0	....	
17	38	26	42	12	17	4	8	7	11	4.83	3.70	5.20	6.87	5.15	16	14	10	0	7.05	
24	57	11	17	11	23	13	21	15	47	2.86	2.96	4.73	3.83	3.59	13	17	10	0	....	
20	51	20	28	6	12	0	0	1	4	4.66	5.86	6.76	7.13	6.10	19	11	12	0	8.37	
3	7	20	24	0	0	1	1	0	0	....	....	....	....	....	17	13	6	0	4.37	Inaccurate
31	95	10	15	1	2	1	2	2	2	2.20	3.36	5.10	6.00	4.17	12	18	8	0	3.47	
21	39	18	37	3	5	0	0	13	35	1.90	2.53	3.23	3.33	2.75	10	20	9	0	4.32	
29	55	24	49	4	12	3	6	0	0	4.53	5.36	5.40	5.16	5.11	15	15	4	0	1.15	
24	84	29	104	0	0	0	0	3	10	2.70	3.70	3.50	4.60	3.62	11	19	5	0	1.21	
30	51	4	5	0	0	0	0	5	9	3.83	3.80	5.20	5.17	4.50	13	17	6	0	1.35	
29	64	23	50	5	11	2	4	0	0	4.66	6.53	7.26	6.83	6.32	19	11	6	0	0.88	
45	97	0	0	0	0	0	0	3	4	1.46	3.10	4.70	5.20	3.62	11	20	10	0	2.95	
57	119	17	43	0	0	0	0	0	0	4.30	5.20	6.33	5.93	5.44	17	13	8	0	4.86	
2	5	6	8	15	60	36	126	33	114	8.00	7.00	7.00	6.00	7.00	25	5	0	0	0.00	Inaccurate.
11	23	14	30	7	20	30	46	23	50	7.27	7.17	5.18	6.14	6.44	24	6	1	1	0.45	
0	0	2	4	15	42	21	56	5	13	6.83	8.63	6.10	6.43	7.00	25	5	1	1	0.04	Inaccurate.
1	3	12	18	52	113	17	39	17	52	8.03	8.56	6.43	2.73	6.44	22	8	3	2	0.94	
6	13	14	44	18	52	11	38	7	19	7.06	9.06	9.10	4.53	7.44	20	10	4	3	2.11	
7	17	3	5	16	44	2	3	11	18	7.75	7.00	5.80	7.75	7.07	22	8	2	1	0.07	
7	15	18	35	12	23	25	51	16	38	7.06	7.56	7.40	9.15	7.79	25	5	2	0	0.27	Temp. for first 15
14	23	21	35	43	94	9	28	9	10	2.43	3.70	4.76	4.56	3.86	11	19	6	0	0.87	[days.
8	12	5	8	29	73	51	116	10	17	6.37	6.73	6.97	6.96	6.76	23	7	8	0	2.07	
2	2	7	11	64	158	9	15	1	3	9.00	8.73	9.06	8.80	8.90	27	3	8	0	1.37	
21	32	13	27	5	12	7	7	20	25	5.60	5.83	6.10	7.23	6.14	19	11	9	0	3.06	
2	3	0	0	33	58	11	22	38	94	1.50	3.36	3.93	3.30	3.02	10	20	16	0	4.38	
0	..	0	..	38	..	0	..	44	..	1.73	1.96	3.60	4.80	3.02	9	21	13	0	3.09	

MONTH OF MAY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	43.29	48.68	53.06	47.67	48.18	70	35	21.9	13.1	8	10	19	40	5	8
Fort Preble	45.80	52.90	57.09	50.67	51.61	72	35	20.4	16.6	16	49	10	27	5	13
Fort Constitution	45.29	54.09	60.51	49.19	52.27	85	33	32.8	19.2	8	16	9	21	14	33
Fort Independence	48.35	55.10	65.93	55.90	56.32	83	38	26.7	18.3	2	6	43	107	0	0
Fort Adams	51.35	57.16	60.00	54.74	55.81	72	38	16.2	17.8	4	14	12	56	17	40
Fort Trumbull	52.50	55.80	62.80	53.90	56.25	80	40	23.8	16.2	0	0	23	68	0	0
Fort Hamilton	53.10	57.90	65.00	58.50	58.62	83	40	24.4	18.6	18	45	7	22	7	15
Fort Columbus	52.90	57.22	65.16	57.67	58.24	86	43	28.4	15.2	13	34	20	43	5	8
West Point	50.52	58.29	64.35	55.35	57.13	81	36	23.9	21.1	18	50	10	19	1	2
Watervliet Arsenal	51.77	60.19	64.06	55.74	57.94	79	36	21.1	21.9	7	18	2	6	1	2
Plattsburg Barracks	45.93	51.93	60.97	52.83	52.91	71	34	18.1	18.9	3	5	12	19	4	5
Madison Barracks	47.16	55.45	60.29	53.58	54.12	74	32	19.9	22.1	9	21	14	26	5	12
Fort Ontario	49.58	51.06	57.03	50.58	52.06	74	33	22.0	19.0	0	0	24	47	0	0
Fort Niagara	47.06	55.19	59.52	52.61	53.59	79	34	25.5	19.5	0	0	33	58	4	6
Alleghany Arsenal	51.30	63.03	72.03	58.93	61.32	87	28	25.7	33.3	18	32	17	34	9	10
Carlisle Barracks	50.54	61.19	71.48	59.61	60.71	89	31	28.3	29.7	11	25	6	13	11	26
Fort Mifflin	52.12	66.83	71.74	56.41	61.77	89	34	27.3	27.7	12	33	10	29	17	37
Fort McHenry	59.41	65.77	70.16	64.03	64.84	85	43	20.2	21.8	9	23	22	44	4	5
Fort Washington	55.87	68.25	78.09	61.96	66.04	93	38	27.0	26.0	..	..	..	..	..	..
Fort Monroe	61.14	64.23	71.30	65.28	65.49	90	44	24.5	21.5	2	4	17	37	31	81
Fort Moultrie	67.64	76.38	77.77	72.00	73.45	91	53	17.6	20.4	5	22	30	157	6	18
Fort Marion	69.35	78.06	78.42	73.61	74.86	88	62	13.2	12.8	2	7	8	24	67	187
Key West Barracks	76.68	80.48	82.64	78.48	79.57	86	74	6.5	15.5	12	38	23	95	63	256
Fort Myers	69.58	78.83	86.89	79.43	78.68	92	66	13.4	12.6	6	19	33	106	29	76
Fort Brooke	71.93	76.51	81.83	75.59	76.46	88	64	11.6	12.4	1	1	2	2	7	10
Fort Meade	66.75	77.33	86.24	75.06	76.35	93	59	16.7	17.3	..	..	..	..	..	..
Barrancas Barracks	69.13	76.64	79.64	73.22	74.66	88	58	13.4	16.6	11	15	8	18	3	8
Mount Vernon Arsenal	66.32	76.54	84.51	72.19	74.89	94	50	19.3	24.7	4	6	12	13	24	25
East Pascagoula	71.09	77.12	83.45	71.53	75.80	90	56	14.2	19.8	14	23	7	11	25	63
Baton Rouge Barracks	63.67	79.25	87.45	70.48	75.21	98	50	22.8	25.2	15	22	23	46	34	65
Fort Towson	64.90	73.64	78.67	70.41	71.91	86	38	14.0	33.4	10	21	1	5	28	50
Fort Washita	66.70	72.83	78.93	71.09	72.39	87	38	14.7	34.3	6	20	10	22	26	68
Fort Gibson	64.67	74.64	78.13	71.58	72.26	88	38	13.8	34.2	6	8	3	5	8	9
Fort Scott	65.77	70.25	74.61	67.38	69.50	90	31	20.5	38.5	6	13	14	26	4	6
Jefferson Barracks	61.64	68.96	74.29	68.19	68.27	89	32	20.8	34.2	10	28	10	20	18	41
St. Louis Arsenal	59.00	63.29	77.48	66.19	66.49	92	34	25.5	32.5	7	13	7	8	14	17
Newport Barracks	60.32	65.74	73.42	69.03	67.13	90	31	22.9	36.1	28	87	6	14	6	12
Detroit Barracks	47.09	58.38	65.64	54.19	56.32	79	28	22.7	28.3	8	13	38	57	7	10
Fort Gratiot	45.67	55.16	60.54	51.25	53.16	83	22	29.9	31.1	17	29	14	29	23	49
Fort Mackinac	39.96	48.38	48.96	41.87	44.79	72	24	27.4	23.6	18	35	5	10	54	138
Fort Brady	39.29	45.00	52.00	41.58	44.47	67	24	22.6	20.4	1	2	2	4	30	96
Fort Howard	41.80	50.25	58.96	49.77	50.19	79	22	28.8	28.2	21	64	12	35	19	31
Fort Ripley	39.22	51.96	54.90	47.67	48.44	77	19	28.6	29.4	31	74	31	76	1	1
Fort Snelling	47.48	58.16	66.19	60.06	57.97	79	29	21.1	28.9	4	11	20	57	13	31
Fort Leavenworth	57.64	64.90	72.90	65.58	65.25	86	42	20.8	23.2	19	20	15	20	7	5
Fort Kearney	51.97	60.61	71.26	58.68	60.63	88	28	27.4	32.6	15	48	34	98	3	7
Fort Laramie	45.19	54.06	67.80	53.54	55.15	85	30	29.9	35.1	0	0	4	12	7	13

MONTH OF MAY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	23	33	61	13	25	18	23	17	29	3.45	5.03	5.29	0.03	3.45	13	18	9	2	2.80	
16	40	7	15	20	66	35	73	15	30	4.83	4.93	5.48	5.32	5.14	16	15	11	1	3.90	
5	10	27	61	19	33	22	44	20	55	3.54	4.32	5.03	4.00	4.22	14	17	13	0	2.55	
5	9	0	0	49	114	5	19	12	44	4.70	5.48	6.06	6.29	5.63	18	13	9	0	....	
11	27	27	77	23	48	22	73	8	34	4.71	4.13	4.22	3.93	4.24	14	17	12	0	4.10	
21	41	1	3	40	90	8	23	31	55	3.67	4.00	4.03	4.80	4.12	12	19	16	0	8.26?	
15	37	15	44	23	71	9	41	31	93	4.50	4.80	4.30	4.32	4.47	14	17	8	0	2.88	
19	47	15	44	17	44	15	50	20	63	4.96	6.25	6.00	6.22	5.83	17	14	11	0	4.73	
20	47	39	70	5	8	6	12	25	53	3.93	3.64	3.93	4.19	3.67	10	21	15	0	4.34	
6	18	42	155	19	60	28	89	19	69	6.35	6.88	5.64	5.29	6.04	16	15	10	2	2.83	
11	12	29	44	20	25	29	29	16	24	3.22	3.16	2.80	2.54	2.93	11	20	15	1	3.61	
5	6	26	64	29	65	33	93	4	10	3.77	4.29	4.96	3.61	4.15	9	22	14	0	5.08	
22	41	0	0	39	73	0	0	39	71	7.45	7.87	8.38	6.48	7.54	15	16	8	0	1.31	
9	11	9	16	16	26	7	10	46	92	2.22	4.29	5.32	3.22	3.76	12	19	14	1	2.49	
6	8	14	36	41	98	7	17	12	27	5.35	5.06	4.25	5.58	5.06	15	16	16	0	3.57	
4	8	23	50	11	26	44	97	14	28	9.22	7.74	7.32	7.09	7.84	15	16	10	1	3.41	
9	37	24	61	17	51	19	49	16	41	5.00	5.45	5.70	5.48	5.40	18	13	11	1	4.65	
8	11	10	14	30	48	22	31	19	26	4.48	4.87	6.45	5.00	5.20	18	13	7	1	4.60	
..	..	..	..	..	..	..	..	..	..	4.19	5.00	5.09	5.80	5.02	18	13	6	1	3.77	
8	20	14	32	29	77	18	40	5	16	4.58	5.67	5.68	7.08	5.75	20	11	7	0	2.20	
35	98	20	76	20	89	4	12	4	20	5.77	5.64	6.16	7.90	6.21	22	9	7	0	0.63	
21	49	7	10	9	13	8	13	2	5	5.90	7.58	7.15	7.90	7.14	26	5	5	0	0.63	
18	69	6	17	0	0	0	0	2	8	5.09	5.26	5.71	6.35	5.60	23	8	6	0	5.32	
26	62	6	13	13	40	7	20	4	12	7.09	7.64	7.09	5.83	6.91	24	7	5	0	2.71	
50	84	20	32	12	24	4	10	6	7	7.29	7.48	6.74	7.35	7.21	25	6	6	0	2.03	
..	..	..	..	..	..	..	..	..	..	7.15	6.65	6.10	7.75	6.91	23	8	7	0	3.00	
33	104	11	37	23	62	1	4	34	43	....	....	....	....	....	18	13	3	0	4.20	
18	23	32	37	9	11	12	19	13	21	3.58	6.09	6.90	7.87	6.11	21	10	6	0	3.44	
25	51	12	24	12	37	15	24	2	5	5.60	5.35	5.50	7.60	6.01	20	8	3	0	2.25	
19	36	15	24	7	12	9	12	2	3	4.25	5.64	4.87	7.64	5.60	22	9	5	0	1.42	
10	28	75	128	0	0	0	0	0	0	1.48	1.83	3.22	5.80	3.08	14	17	9	0	6.33	
16	42	42	117	20	44	3	7	1	1	2.83	3.32	3.87	4.19	3.55	12	19	8	0	4.47	
23	46	61	117	20	38	3	3	0	0	3.74	4.32	4.22	6.29	4.64	14	17	6	0	3.20	
12	30	42	158	37	148	3	3	6	16	3.77	4.64	4.90	5.87	4.80	15	16	6	0	4.39	
17	38	31	82	10	31	21	67	7	14	3.67	3.93	4.22	4.51	4.08	10	21	7	0	3.97	
20	38	38	48	17	53	14	27	7	21	....	....	....	....	....	14	17	5	0	2.26	
2	6	48	94	14	42	8	19	12	53	4.35	5.00	6.00	5.32	5.17	16	15	7	0	7.93?	Inaccurate.
6	14	3	5	14	31	44	100	2	4	4.12	4.32	4.90	5.09	4.36	15	16	11	1	5.30	
17	29	27	59	10	24	11	27	5	11	3.64	5.54	5.94	4.12	4.55	14	17	10	2	5.36	
2	3	5	7	4	13	34	86	2	5	....	....	....	....	....	13	18	16	2	1.23	Inaccurate.
16	59	2	4	32	99	31	119	10	32	3.12	3.32	3.83	3.41	3.48	10	21	11	3	3.11	
2	4	34	89	6	11	22	58	8	23	3.74	3.09	3.36	3.87	3.51	9	22	14	3	8.50	
18	66	23	51	6	23	9	22	5	9	5.32	4.67	4.32	4.87	4.79	15	16	12	1	5.56	
22	64	14	38	28	81	15	39	8	21	5.29	5.90	6.93	6.67	6.20	20	11	14	1	3.96	
3	3	27	39	43	113	7	17	3	5	4.16	3.76	3.58	4.29	3.95	12	19	13	0	6.40	
14	50	23	88	1	2	6	22	4	15	4.19	4.58	4.54	5.03	4.58	15	16	12	0	9.43	
9	7	18	21	25	26	56	58	5	5	6.19	7.54	7.61	5.90	6.81	22	9	10	1	4.21	

MONTH OF MAY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Atkinson	56.30	67.70	76.43	65.73	66.54	88	32	21.5	34.5	3	..	20	..	0	..
Fort Arbuckle	62.90	71.96	76.00	65.58	69.11	87	35	17.9	34.1	0	0	5	17	15	39
Fort Worth	64.77	75.77	82.48	67.77	72.70	90	44	17.3	28.7	12	18	12	34	28	53
Fort Graham	67.91	72.74	85.37	73.64	74.92	94	41	19.1	33.9	0	0	4	4	4	9
Fort Gates	68.38	75.51	79.80	74.29	74.49	87	46	12.6	28.4	1	1	9	19	1	1
Fort Croghan	68.36	76.65	83.52	73.55	75.52	93	48	17.5	27.5	3	4	3	6	3	5
Austin	67.77	79.41	85.45	72.22	76.21	92	50	15.8	26.2	1	2	0	0	1	1
Fort Martin Scott	65.04	72.51	79.03	67.77	71.09	95	54	24.0	17.0	8	11	7	12	6	6
San Antonio	69.41	75.51	81.22	72.90	74.76	88	50	13.3	24.7	5	6	3	6	32	38
Fort Merrill	70.80	77.93	85.03	75.58	77.34	91	53	13.7	24.3	1	4	3	7	1	1
Corpus Christi	74.83	80.54	86.74	77.34	79.86	91	55	11.2	24.8	1	3	4	12	11	27
Fort Brown	75.00	85.16	88.25	77.99	81.60	98	64	16.4	17.6	0	0	5	11	32	65
Ringgold Barracks	74.45	84.12	96.25	80.38	83.80	103	59	19.2	24.8	1	3	3	8	9	28
Fort McIntosh	72.39	84.60	95.10	79.60	82.92	104	56	21.1	26.9	1	1	7	11	26	40
Fort Duncan	76.90	79.24	86.95	82.22	81.33	94	63	12.7	18.3	2	8	5	14	16	42
Fort Inge	68.64	76.16	86.00	74.80	78.90	95	55	16.1	23.9	0	0	5	15	3	11
Fort Lincoln	......	......	......	......	......	....	....	......	......	5	11	2	4	5	16
El Paso	64.74	84.39	90.48	72.13	77.92	100	60	23.1	17.9	4	10	17	53	14	46
Doña Ana	56.30	70.18	81.26	71.80	69.89	88	43	18.2	26.8	3	13	15	37	3	5
Socorro	53.35	65.58	82.35	70.77	68.01	96	42	17.9	26.0	2	4	4	8	7	15
Albuquerque	43.87	65.22	72.32	65.80	61.80	79	35	17.2	26.8	1	1	6	34	1	1
Cebolletta	52.03	66.90	74.19	63.87	64.25	85	43	21.8	21.2	4	11	9	26	4	5
Las Vegas	46.96	72.67	76.38	48.25	61.06	87	34	26.0	27.0	15	18	7	33	6	14
Rayado	47.06	68.93	74.61	55.87	61.62	86	27	24.4	34.6	0	0	1	7	11	23
Santa Fé	44.75	63.60	73.15	54.60	59.02	86	34	27.0	25.0	3	6	4	4	6	16
San Diego	......	......	......	......	......	....	....	......	......	2	3	0	0	1	1
Benicia Barracks	53.41	63.45	75.80	54.67	61.83	82	50	20.2	11.8	2	4	2	7	0	0
Camp Far West	48.90	64.12	76.19	59.32	62.13	87	37	24.9	25.1	6	7	4	4	0	0
Astoria	49.83	57.29	60.74	52.09	55.00	78	46	23.0	9.0	1	2	4	7	10	18
Fort Steilacoom	45.93	54.80	64.64	52.16	54.38	80	40	25.7	14.3	14	..	0	..	8	..

MONTH OF MAY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
50	..	20	..	6	..	3	..	5	..	....	....	....	....	....	17	14	7	0	....	
8	23	22	47	44	114	15	47	1	2	3.87	4.22	4.35	5.29	4.43	15	16	8	0	2.61	
42	120	14	46	15	33	1	2	0	0	5.83	5.87	7.70	7.58	6.75	23	8	5	0	9.27?	
31	62	30	54	53	121	0	0	2	4	1.61	2.96	5.87	4.70	3.79	15	16	10	0	3.05	
20	59	64	147	24	81	2	2	3	4	2.93	4.19	5.77	6.16	4.76	15	16	10	0	....	
46	123	65	190	1	2	1	6	2	3	2.29	3.48	4.26	5.45	3.87	12	19	4	0	1.06	
21	36	74	202	8	24	2	5	5	15	2.35	3.67	5.48	5.74	4.31	14	17	12	0	....	
58	147	37	82	6	12	0	0	2	5	3.51	5.06	6.25	5.71	5.13	18	13	4	0	1.18	
39	66	45	55	0	0	0	0	0	0	6.67	7.35	7.67	7.61	7.32	19	12	3	0	2.80	
53	89	31	67	1	6	2	7	0	0	3.32	4.03	5.16	6.32	4.71	15	16	7	0	1.41	
88	319	8	14	3	10	0	0	2	5	2.83	2.67	4.06	4.38	3.48	12	19	5	0	2.53	
50	118	27	75	9	19	1	2	0	0	3.51	3.45	4.19	4.48	3.91	10	21	1	0	0.90	
24	86	83	348	0	0	0	0	0	0	3.16	4.09	5.12	5.87	4.56	15	16	1	0	0.20	
84	180	0	0	0	0	2	2	4	5	5.26	4.32	6.06	6.35	5.50	20	11	4	0	0.37	
77	180	21	47	0	0	0	0	0	0	4.87	5.51	7.51	7.96	6.46	22	9	3	0	1.15	
102	230	4	6	0	0	0	0	0	0	1.06	1.58	3.45	4.80	2.72	11	20	4	0	1.08	
94	252	16	53	0	0	1	2	1	5	2.35	3.48	5.16	4.87	3.97	10	21	3	0	1.90	
21	61	0	0	13	37	41	114	14	35	7.70	8.20	7.30	6.90	7.52	29	2	2	0	0.70	
26	81	8	36	46	162	4	19	7	20	7.70	8.10	6.30	7.29	7.35	27	4	1	0	....	
30	65	19	47	33	58	17	29	11	23	7.19	6.52	5.90	6.30	6.48	24	7	1	0	0.01	
2	8	9	25	19	80	11	32	1	1	7.03	7 90	6.54	6.45	6.98	24	7	1	0	0.03	
3	6	12	18	12	28	22	60	25	71	8.41	7.77	6.46	1.67	6.08	25	6	1	0	0.01	
3	11	20	75	14	47	4	9	10	36	7.83	9.12	9.54	4.80	7.82	30	1	5	1*	2.82	* Sleet.
16	45	2	5	28	82	48	179	5	19	8.70	7.64	6.58	7.29	7.55	29	2	7	0	....	
26	57	6	15	33	87	5	7	9	14	7.40	7.30	6.10	7.40	7.05	27	4	6	0	0.07	
3	4	22	32	81	198	8	21	7	13	1.61	3.25	5.61	3.29	3.44	10	21	5	0	0.71	
0	0	25	55	90	288	5	11	0	0	7.29	8.23	9.07	10.00	8.65	30	1	3	0	0.59	
26	59	44	82	10	22	0	0	16	29	7.41	7.77	7.74	7.96	7.72	26	5	4	0	0.86	
7	10	1	2	51	87	10	33	28	63	2.13	3.55	4.09	3.55	3.33	11	20	16	0	5.95?	
0	..	0	..	61	..	9	..	32	..	3.35	2.93	3.03	4.12	3.36	12	19	11	0	1.95	

MONTH OF JUNE, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Sullivan	49.50	55.70	59.06	52.66	54.31	75	43	20.7	11.3	7	7	11	22	22	48
Fort Preble	53.13	59.96	63.73	58.03	58.71	76	43	17.3	15.7	3	7	9	23	7	18
Fort Constitution	53.93	62.93	70.36	56.43	60.91	85	46	13.1	14.9	14	25	6	8	14	39
Fort Independence	55.83	63.26	74.03	64.16	64.32	88	47	23.7	17.3	18	22	6	14	0	0
Fort Adams	59.20	65.60	69.73	63.47	64.50	86	48	21.5	16.5	7	26	8	39	11	31
Fort Trumbull	60.70	66.93	71.66	62.30	65.40	84	50	18.6	15.4	0	0	21	42	0	0
Fort Hamilton	61.00	67.40	74.40	67.20	67.50	84	53	16.5	14.5	9	23	3	7	8	15
Fort Columbus	60.43	69.40	76.23	67.73	68.45	90	53	21.6	15.4	12	12	7	13	3	4
West Point	58.57	66.13	72.39	64.93	65.51	90	49	24.2	26.8	33	59	8	17	0	0
Watervliet Arsenal	59.66	68.00	76.26	62.76	66.67	88	48	21.4	18.6	2	4	0	0	0	0
Plattsburg Barracks	55.17	61.20	69.37	60.87	61.65	85	43	23.4	18.6	1	1	8	12	4	4
Madison Barracks	55.70	63.36	68.90	60.06	62.01	88	39	26.0	23.0	0	0	6	10	3	7
Fort Ontario	56.53	63.86	68.53	57.76	61.67	94	43	32.4	18.6	0	0	11	19	0	0
Fort Niagara	56.10	65.73	71.10	61.40	63.58	86	45	23.5	17.5	0	0	11	18	1	1
Alleghany Arsenal	58.10	67.90	75.43	64.23	66.41	92	47	25.6	19.4	11	18	14	19	3	5
Carlisle Barracks	56.30	69.20	78.76	65.06	67.33	98	43	30.7	24.3	6	11	5	8	9	23
Fort Mifflin	61.00	71.40	78.22	67.25	69.47	97	50	27.6	19.4	1	1	11	40	4	13
Fort McHenry	66.36	71.06	76.70	71.46	71.39	90	52	18.6	19.4	2	3	17	28	0	0
Fort Washington	62.20	73.53	84.83	68.63	72.20	101	48	28.8	24.2	..	..	..	..	..	..
Fort Monroe	68.13	72.30	77.57	72.27	72.54	92	58	19.5	14.5	1	3	18	56	44	90
Fort Moultrie	74.56	80.80	82.53	77.90	78.95	91	60	14.1	16.9	9	52	26	128	1	2
Fort Marion	74.13	83.36	81.60	77.46	79.14	95	67	15.9	22.1	1	2	16	66	10	33
Key West Barracks	78.97	82.57	84.80	80.83	81.79	88	76	6.3	5.7	1	4	4	13	35	94
Fort Myers	73.46	81.46	85.00	78.46	79.59	94	70	14.5	9.5	6	19	21	63	18	39
Fort Brooke	73.73	79.36	83.63	77.93	78.66	89	71	10.4	7.6	6	9	3	3	28	33
Fort Meade	71.56	83.90	86.16	75.66	79.32	93	67	12.7	12.3	0	0	3	6	32	82
Barrancas Barracks	74.96	82.43	86.23	79.30	80.73	90	68	9.3	12.7	9	20	8	21	3	7
Mount Vernon Arsenal	76.50	80.53	86.13	76.16	79.83	92	66	12.2	13.8	9	12	15	20	11	14
East Pascagoula	77.78	85.55	87.12	81.77	83.05	91	70	8.0	13.0	12	12	20	30	2	2
Baton Rouge Barracks	69.06	82.43	92.16	71.56	78.80	98	64	9.2	14.8	15	19	30	46	21	27
Fort Towson	71.16	79.30	86.10	76.63	78.30	96	62	17.7	16.3	6	9	3	12	11	14
Fort Washita	70.00	80.10	88.46	80.11	79.56	96	55	16.5	44.5	3	7	10	22	13	19
Fort Gibson	70.46	76.23	85.46	76.46	77.16	93	61	15.9	16.1	0	0	0	0	6	9
Fort Scott	66.80	72.96	80.40	73.43	73.40	91	50	17.6	23.4	3	5	15	24	6	13
Jefferson Barracks	68.46	74.13	79.31	72.60	73.62	88	54	14.4	19.6	5	7	3	3	13	16
St. Louis Arsenal	65.93	71.56	82.00	70.13	72.41	96	53	23.6	19.4	18	29	22	37	14	40
Newport Barracks	66.00	70.27	79.97	73.60	72.46	90	56	17.6	16.4	33	101	6	12	8	18
Fort Gratiot	53.80	63.73	69.76	60.73	62.00	88	40	26.0	22.0	12	26	11	18	15	25
Fort Mackinac	54.00	60.00	60.10	56.33	57.61	74	39	16.4	18.6	11	20	4	8	31	99
Fort Brady	49.13	55.40	60.18	49.13	53.46	71	38	17.6	15.4	3	9	3	4	24	76
Fort Howard	52.70	64.80	70.73	60.83	62.26	85	40	22.8	22.2	7	15	4	6	6	10
Fort Ripley	50.50	64.96	68.50	56.20	60.04	85	33	25.0	27.0	6	16	24	42	6	15
Fort Snelling	57.10	68.13	75.53	70.43	67.80	87	43	19.2	24.8	3	10	10	20	9	23
Fort Leavenworth	64.63	70.43	77.01	70.33	70.62	87	48	16.4	21.6	20	23	12	23	7	12
Fort Kearney	58.80	67.73	77.56	63.93	67.00	94	39	27.0	28.0	22	48	22	50	13	32
Fort Laramie	57.70	67.43	77.60	66.10	67.21	90	42	22.8	25.2	13	35	7	12	20	38
Fort Atkinson	65.32	73.64	83.92	73.97	74.21	93	57	18.8	17.2	8	30	32	74	3	11

MONTH OF JUNE, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
12	15	22	34	10	13	16	20	20	26	5.03	5.70	6.16	0.90	4.44	15	15	7	0	1.40	
20	55	10	19	12	32	37	69	22	46	5.86	5.90	5.76	4.36	5.47	16	14	12	0	3.87	
11	34	25	69	8	17	22	49	20	58	5.00	5.93	6.36	4.80	5.52	17	13	8	0	3.67	
8	18	8	12	33	93	9	16	7	16	5.33	6.56	6.33	5.23	5.86	18	12	6	0	....	
12	19	27	64	21	50	13	26	21	76	4.63	4.93	4.57	3.87	4.50	15	15	6	0	2.10	
11	22	1	1	46	83	8	12	33	60	4.23	5.20	5.10	5.23	4.94	17	13	7	0	5.75?	Inaccurate.
9	27	16	39	22	69	9	25	44	114	6.10	6.40	6.80	7.30	6.65	20	10	6	0	1.68	
16	43	15	18	27	54	18	27	22	39	5.70	6.40	6.53	6.26	6.22	20	10	4	0	0.99	
7	16	36	69	5	9	4	6	27	55	4.80	4.53	3.97	5.93	4.80	15	15	6	0	1.53	
2	7	41	135	19	50	48	155	8	21	7.06	6.50	6.06	6.33	6.48	16	14	13	0	3.60	
11	11	41	57	21	40	18	28	10	18	4.90	5.03	4.87	4.77	4.89	17	13	7	0	5.35	
4	13	27	74	49	119	30	68	1	3	5.33	5.60	6.63	5.70	5.81	19	11	13	0	2.78	
29	54	0	0	54	102	0	0	26	53	8.30	8.06	8.36	7.43	8.03	17	13	7	0	2.55	Weather inaccurate
18	29	13	23	27	47	12	17	38	64	2.26	4.20	5.76	3.76	3.99	14	16	13	0	1.69	
7	11	19	49	18	50	14	33	11	27	2.66	3.80	4.23	5.10	3.94	12	18	8	0	2.04	
6	15	12	31	16	34	59	100	7	18	....	....	....	....	....	18	12	7	0	4.30	
14	54	23	57	34	86	18	33	15	44	5.20	6.27	6.10	5.20	5.69	20	10	11	0	3.00	
10	17	5	10	37	59	21	37	28	43	5.26	6.20	5.33	5.23	5.50	18	12	5	0	1.20	
..	..	..	..	..	..	..	..	..	..	4.10	5.60	4.56	5.80	5.01	15	15	5	0	1.42	
13	30	4	6	31	72	4	10	5	8	4.13	4.23	5.23	5.80	4.87	15	15	8	0	2.51	
15	62	21	84	38	135	3	9	7	22	5.00	4.26	4.10	5.03	4.62	15	15	14	0	8.25	
23	81	25	54	16	32	19	30	3	3	4.56	5.30	4.43	5.20	4.87	17	13	13	0	8.01	
36	106	28	87	5	12	5	12	6	7	3.10	3.76	4.10	4.90	3.96	12	18	13	0	9.24	
35	70	9	20	19	52	11	34	1	2	7.23	6.60	4.70	4.83	5.84	22	8	17	0	18.51	
19	20	19	24	12	17	17	27	8	9	6.16	6.33	4.86	6.36	5.93	22	8	16	0	6.57	
10	21	8	21	2	7	18	41	3	5	5.93	5.07	3.26	4.70	4.74	16	14	15	0	8.67	
4	11	5	17	49	177	4	11	39	58	0.50	2.03	1.90	3.60	2.01	15	15	6	0	0.96	Clearness inaccurate
11	12	17	20	5	8	31	38	21	21	5.20	6.06	3.96	5.80	5.25	14	16	9	0	5.35	
36	93	16	46	12	34	7	14	15	25	5.76	4.33	5.30	5.70	5.27	17	13	7	0	1.44	
10	16	16	29	12	25	12	16	4	5	6.16	5.30	4.83	7.51	5.95	20	10	7	0	2.06	
14	43	72	110	0	0	14	20	0	0	4.20	5.06	4.23	6.26	4.94	16	14	8	0	5.04	
11	29	23	34	38	92	10	29	0	0	5.16	5.33	6.50	6.86	5.96	20	10	6	0	4.20	
17	38	60	110	24	49	0	0	0	0	5.06	5.83	6.40	7.03	6.08	22	8	4	0	6.45	
7	10	37	76	36	82	5	6	7	8	4.03	4.33	4.93	5.80	4.77	16	14	11	0	7.53	
16	31	15	28	15	41	41	85	6	13	3.10	3.70	4.73	5.00	4.13	14	16	13	0	5.64	
4	17	14	22	3	5	25	42	20	31	....	....	....	....	....	15	15	11	0	3.81	
4	15	35	77	17	64	9	23	8	20	3.70	4.40	5.20	5.30	4.65	16	14	12	0	5.12	
10	16	31	68	17	33	15	22	9	19	5.20	6.90	6.83	5.33	6.04	17	13	10	0	1.50	
2	5	3	6	10	27	53	127	6	15	....	....	....	....	....	14	16	14	0	1.91	
7	22	5	11	32	102	35	123	11	23	3.20	3.28	4.23	4.18	3.72	12	18	9	0	2.91	
5	14	26	83	11	26	23	56	0	0	5.00	4.90	3.36	5.16	4.61	13	17	9	0	3.15	
27	60	9	18	13	16	16	33	19	62	5.60	4.20	3.66	5.40	4.71	14	16	15	0	5.50	
21	44	15	30	31	63	12	25	19	41	7.00	6.63	7.33	8.26	7.31	24	6	10	0	2.15	
10	16	28	40	20	38	2	2	7	11	2.33	2.83	3.86	4.50	3.38	14	16	13	0	8.16	
30	84	9	28	0	0	6	18	6	21	3.33	3.80	4.60	4.03	3.94	15	15	8	0	3.50	
6	14	9	18	4	8	23	50	8	20	5.60	7.20	6.86	5.73	6.35	22	8	4	0	0.33	
43	109	18	23	6	14	1	1	7	11	3.30	4.70	7.30	4.70	5.00	19	11	6	0	....	

MONTH OF JUNE, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Arbuckle	69.16	79.76	86.66	76.56	78.03	91	53	13.0	25.0	2	3	6	10	8	10
Fort Worth	71.03	80.60	88.63	76.90	79.29	94	66	14.7	13.3	0	0	4	6	18	30
Fort Graham	72.60	78.70	94.90	79.60	81.45	100	68	18.6	11.4	0	0	0	0	1	3
Fort Gates	74.43	83.03	88.16	80.73	81.59	93	71	11.4	9.6	0	0	0	0	3	8
Fort Croghan	71.83	83.47	91.93	79.57	81.70	96	66	14.3	15.7	0	0	1	2	4	13
Fort Austin	70.66	83.63	89.73	76.06	80.02	95	64	15.0	16.0	0	0	6	25	3	4
Fort Martin Scott	68.20	77.90	90.43	73.53	77.51	100	63	32.5	14.5	0	0	6	8	4	8
San Antonio	72.43	78.33	84.83	79.93	78.88	88	70	9.1	8.9	3	5	9	19	23	34
Fort Merrill	74.83	82.80	90.56	81.00	82.30	102	69	19.7	13.3	0	0	3	11	0	0
Corpus Christi	78.26	82.46	87.96	81.80	82.62	91	74	8.4	8.6	0	0	4	8	8	23
Fort Brown	76.87	87.53	90.53	77.53	83.11	96	72	12.9	11.1	0	0	2	4	27	57
Ringgold Barracks	76.86	87.53	98.90	82.26	86.39	108	73	20.7	13.4	1	4	1	3	1	3
Fort McIntosh	74.23	88.77	97.73	83.37	86.02	106	70	20.0	16.0	1	1	6	13	24	42
Fort Duncan	79.46	83.16	92.66	86.35	85.39	95	76	9.6	19.4	5	11	2	3	24	48
Fort Inge	71.66	81.76	92.23	79.86	81.38	96	64	14.6	17.4	0	0	4	12	20	28
Fort Lincoln	......	......	......	......	......	....	....	......	......	4	13	2	13	2	6
El Paso	78.76	91.60	98.76	80.30	87.36	108	68	20.6	19.4	0	0	6	14	7	20
Doña Ana	63.27	80.20	91.11	81.20	78.94	101	52	22.1	22.9	2	3	13	21	2	2
Socorro	62.70	79.07	95.70	79.83	79.32	104	47	24.7	32.3	2	2	3	4	6	7
Albuquerque	51.03	72.73	83.86	73.16	70.19	88	43	17.8	27.2	4	5	1	1	4	17
Cebolletta	64.06	79.86	87.10	73.76	76.19	96	53	18.8	23.2	21	39	13	16	4	7
Las Vegas	51.76	80.10	89.33	64.66	71.46	101	47	29.5	24.5	1	3	2	5	10	23
Rayado	57.50	75.50	84.10	68.83	71.48	93	45	22.5	26.5	6	14	3	10	4	14
Santa Fé	51.67	76.70	86.67	62.70	69.43	98	39	28.6	30.4	1	1	23	35	6	11
San Diego	......	......	......	......	......	....	....	......	......	0	0	1	1	3	5
Benicia Barracks	54.50	65.16	80.70	60.30	65.16	94	52	28.8	13.2	0	0	0	0	1	1
Camp Far West	54.43	74.50	88.23	69.46	71.66	107	45	35.3	26.7	2	2	0	0	0	0
Astoria	54.06	61.01	66.43	56.60	59.53	74	50	14.5	9.5	4	9	4	6	12	16
Fort Steilacoom	50.86	61.10	73.20	59.90	61.26	84	46	21.7	13.3	12	..	0	..	0	..

MONTH OF JUNE, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
14	22	34	76	20	46	15	37	1	2	6.76	7.63	6.03	8.23	7.16	23	7	5	0	2.19	
43	101	25	93	14	36	7	13	0	0	7.73	7.00	6.76	8.90	7.60	23	7	1	0	0.22	
8	14	24	32	87	170	0	0	0	0	1.73	4.00	7.03	7.05	4.95	18	12	5	0	0.32	
10	37	82	215	25	60	0	0	0	0	6.16	6.10	3.46	7.56	5.82	23	7	2	0	....	
54	159	56	131	2	4	2	2	1	2	4.77	6.13	6.70	8.70	6.57	22	8	5	0	1.06	
27	72	55	109	5	9	1	1	1	1	2.96	5.13	5.93	7.33	5.34	19	11	11	0	....	
53	92	40	50	5	11	0	0	0	0	3.86	5.20	6.43	6.44	5.48	20	10	4	0	0.08	
54	90	15	22	14	18	1	1	1	3	....	....	....	....	....	21	9	5	0	3.74	
31	86	37	87	2	7	1	5	0	0	4.90	5.03	5.90	8.20	6.01	24	6	5	0	1.83	
69	214	20	44	12	20	0	0	2	7	4.26	3.40	4.36	6.40	4.61	14	16	4	0	5.52	
47	120	43	101	1	2	0	0	0	0	4.20	4.26	5.16	5.60	4.80	15	15	1	0	2.35	
10	36	90	286	6	21	0	0	0	0	5.53	6.53	6.13	7.00	6.30	22	8	6	0	1.21	
82	155	3	3	1	1	0	0	3	5	7.23	6.17	6.53	7.63	6.89	23	7	5	0	3.36	
33	86	56	130	0	0	0	0	0	0	5.93	7.60	8.73	8.93	7.80	25	5	2	0	2.30	
82	132	0	0	0	0	0	0	0	0	3.06	4.20	4.96	8.06	5.07	16	14	4	0	0.73	
92	233	9	22	0	0	0	0	1	3	2.00	3.73	6.40	6.40	4.63	14	16	6	0	0.76	
16	39	17	31	17	48	24	62	29	90	7.80	7.65	7.47	7.66	7.64	30	0	1	0	0.02	
22	56	2	4	43	95	13	38	10	28	8.18	9.60	8.11	8.17	8.51	30	0	1	0	0.03	
20	36	10	18	26	51	26	30	18	38	7.33	8.03	6.60	8.33	7.57	29	1	0	0	0.00	
1	3	14	39	3	11	16	56	0	0	8.80	9.66	9.40	8.68	9.14	30	0	0	0	0.00	
14	20	22	50	7	13	16	26	6	10	9.66	9.56	8.80	3.60	7.91	30	0	0	0	0.00	Temp. inaccurate.
9	24	9	29	36	107	46	142	4	7	7.70	9.43	9.20	4.48	7.70	30	0	0	0	0.00	" "
2	8	16	35	9	20	11	21	6	12	8.23	7.83	7.10	7.33	7.62	29	1	0	0	0.00	
11	18	4	8	24	47	9	15	3	7	9.50	9.33	8.66	9.20	9.16	30	0	0	0	0.00	
4	5	31	43	62	151	5	13	9	17	1.03	5.60	7.46	4.70	4.70	20	10	1	0	0.01	
2	5	18	36	0	0	88	249	11	26	8.40	8.76	9.93	9.76	9.21	30	0	0	0	0.00	
32	72	22	37	15	28	7	9	5	9	8.73	8.70	8.90	9.33	8.91	30	0	0	0	0.00	
3	5	0	0	35	61	25	49	38	99	2.76	3.00	5.30	2.73	3.45	12	18	7	0	2.85	
0	..	0	..	18	..	42	..	48	..	3.93	3.40	5.30	5.93	4.64	15	15	5	0	0.55	

MONTH OF JULY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	55.29	60.74	65.32	57.38	59.68	82	50	22.3	9.7	5	13	16	43	6	17
Fort Preble	60.70	67.29	72.38	66.00	66.59	83	53	16.4	13.6	11	30	9	19	2	7
Fort Constitution	60.32	71.00	76.38	63.12	67.70	90	51	22.3	16.7	25	42	6	12	12	26
Fort Independence	65.00	70.96	77.16	71.34	71.11	87	61	15.9	10.0	0	0	14	37	0	0
Fort Adams	67.03	73.35	76.77	69.71	71.71	84	56	12.3	15.7	15	49	2	7	3	11
Fort Trumbull	68.48	73.45	76.90	69.51	72.08	85	60	12.9	12.1	0	0	20	38	1	1
Fort Hamilton	68.70	74.06	79.64	72.86	73.56	86	59	12.4	14.6	11	25	6	14	12	23
Fort Columbus	70.58	77.00	81.73	73.25	75.64	93	62	17.4	13.6	9	15	11	20	5	9
West Point	64.87	72.06	79.22	70.35	71.62	88	58	16.4	13.6	24	50	4	8	1	2
Watervliet Arsenal	66.41	72.96	79.64	69.54	72.14	94	59	21.9	13.1	7	23	0	0	0	0
Plattsburg Barracks	59.32	66.03	75.32	67.19	66.96	88	48	21.0	19.0	0	0	4	4	4	5
Madison Barracks	62.06	70.77	75.38	65.87	68.52	88	50	19.5	18.5	3	4	15	32	3	5
Fort Ontario	62.12	71.09	77.90	64.19	68.82	95	51	26.2	17.8	0	0	21	39	0	0
Fort Niagara	62.45	70.61	75.29	66.32	68.67	85	54	16.3	14.7	1	1	25	44	6	13
Alleghany Arsenal	64.78	71.83	82.51	69.64	72.19	92	52	19.8	20.2	30	35	10	16	6	9
Carlisle Barracks	62.61	74.80	79.80	70.38	71.90	94	52	22.1	19.9	1	1	6	9	27	51
Fort Mifflin	69.30	77.15	85.28	73.29	76.25	94	61	17.8	15.2	4	4	14	45	5	14
Fort McHenry	73.74	79.13	83.35	77.09	78.33	92	63	13.7	15.3	6	12	10	25	6	19
Fort Washington	68.87	82.32	89.03	73.70	78.48	100	60	21.5	18.5	..	..	..	..	..	..
Fort Monroe	74.51	77.39	85.22	78.84	79.00	97	65	18.0	14.0	0	0	10	26	16	46
Fort Moultrie	78.32	83.32	88.67	81.03	82.84	99	70	16.2	12.8	2	8	10	45	4	13
Fort Marion	75.16	84.90	83.74	78.39	80.55	95	73	14.5	7.5	1	1	5	14	28	64
Key West Barracks	79.74	84.16	87.42	82.61	83.48	91	77	7.5	6.5	9	24	15	35	42	144
Fort Myers	76.66	82.58	85.94	81.64	81.71	95	72	13.3	9.7	4	9	16	43	25	40
Fort Brooke	75.83	81.31	84.02	79.57	80.16	89	71	8.8	9.2	0	0	3	4	29	40
Fort Meade	71.80	84.31	88.06	76.79	80.24	95	68	14.8	12.2	0	0	2	3	15	27
Barrancas Barracks	77.59	84.67	87.77	82.12	83.04	91	73	8.0	10.0	7	14	9	30	4	16
Mount Vernon Arsenal	74.25	84.22	89.35	79.48	81.82	98	68	16.2	13.8	9	10	15	16	14	16
East Pascagoula	79.76	86.37	89.90	84.64	85.17	94	75	8.8	10.2	23	28	8	14	4	7
Baton Rouge Barracks	71.25	84.90	91.29	78.29	81.43	98	63	16.6	18.4	13	25	20	35	24	31
Fort Towson	73.22	82.63	92.06	81.03	82.23	98	67	15.8	15.2	8	11	2	4	26	32
Fort Washita	72.19	84.22	93.00	80.22	82.41	100	63	17.6	19.4	10	27	18	28	22	33
Fort Gibson	73.64	83.35	92.03	80.96	82.50	103	63	20.5	19.5	0	0	0	0	3	6
Fort Scott	70.61	78.41	87.38	76.51	78.23	94	55	15.8	23.2	7	12	9	15	8	12
Jefferson Barracks	74.70	78.74	85.19	79.48	79.53	94	56	14.5	23.5	9	16	1	1	7	12
St. Louis Arsenal	69.55	79.71	89.42	74.71	78.35	101	56	22.7	22.3	13	33	2	3	6	10
Newport Barracks	70.74	75.58	80.58	78.32	76.30	94	58	17.7	18.3	22	57	3	4	3	5
Fort Gratiot	57.48	67.77	78.84	66.45	67.56	92	48	24.4	19.6	5	6	38	93	3	4
Fort Mackinac	61.29	68.96	74.31	60.06	66.15	83	52	16.9	14.1	16	33	1	2	30	75
Fort Brady	56.65	64.90	71.93	56.42	62.46	86	49	13.5	13.5	0	0	6	24	17	52
Fort Howard	58.96	69.48	75.38	65.48	67.32	89	44	21.7	23.3	19	44	4	6	9	19
Fort Snelling	69.16	77.54	81.77	76.90	76.34	94	53	17.7	23.3	8	16	18	38	6	13
Fort Leavenworth	68.70	76.38	82.67	75.32	75.77	90	59	14.2	16.8	9	11	10	14	1	2
Fort Kearney	66.32	77.83	88.45	72.09	76.17	101	54	24.8	22.2	9	12	41	84	7	15
Fort Laramie	66.18	78.20	89.55	75.58	77.38	102	53	24.6	24.4	6	13	5	11	11	21
Fort Atkinson	72.45	82.11	90.21	79.60	81.09	96	67	14.9	14.1	4	10	4	6	1	1
Fort Arbuckle	73.28	84.64	90.67	78.74	81.83	99	61	17.2	21.8	2	2	8	10	4	5

MONTH OF JULY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	9	31	50	21	28	32	51	7	9	3.16	3.90	5.22	0.96	3.31	8	23	7	0	3.35	
9	18	9	19	25	69	32	65	27	44	5.96	5.32	6.41	5.19	5.72	15	16	11	0	3.65	
9	15	27	59	7	15	25	62	13	32	3.61	5.03	5.87	4.58	4.77	13	18	14	0	4.30	
36	60	0	0	33	74	7	18	9	24	3.70	5.29	4.51	4.22	4.43	15	16	8	0	1.60	
3	7	40	86	19	46	22	54	20	75	4.61	3.68	3.35	4.51	4.03	14	17	13	0	6.62	
5	7	2	3	59	115	7	15	30	57	3.90	4.83	5.03	4.77	4.63	14	17	15	0	11.79?	
5	12	3	7	35	105	14	42	38	97	6.30	6.00	7.10	6.30	6.42	20	11	9	0	3.29	
13	27	15	38	24	58	18	36	29	63	5.38	7.19	6.70	6.29	6.39	21	10	11	0	4.72	
7	12	35	64	10	16	5	8	38	82	3.48	4.09	4.07	5.18	4.18	13	18	9	0	4.44	
1	4	32	96	16	41	56	182	12	33	6.38	6.32	6.03	5.41	6.03	18	13	13	0	4.43	
11	16	39	52	27	32	23	29	16	19	3.45	3.80	4.54	4.67	4.11	12	19	12	0	3.09	
2	2	26	39	36	107	36	69	3	6	4.67	5.58	5.41	5.22	5.22	16	15	14	0	7.67	
22	29	0	0	49	91	0	0	32	84	7.48	7.74	7.83	6.29	7.32	17	14	9	0	2.57	Weather inaccurate.
13	17	12	28	28	60	11	19	28	84	2.74	4.16	4.77	3.00	3.66	14	17	12	0	3.18	
1	1	11	12	37	87	24	55	5	7	2.93	4.25	3.58	5.30	4.01	13	18	10	0	4.30	
1	3	6	16	4	10	69	148	10	23	....	....	....	....	....	15	16	11	0	3.89	
7	15	26	73	31	95	23	54	14	35	4.27	6.27	5.15	4.21	4.95	20	11	12	0	3.65	
2	6	3	3	40	82	31	76	26	51	5.29	5.80	5.41	4.79	5.32	19	12	10	0	4.20	
..	..	..	..	..	..	..	..	..	..	4.35	4.64	3.74	5.93	4.67	18	13	10	0	4.92	
13	25	14	29	55	122	4	8	12	21	4.58	5.12	1.33	5.41	4.11	20	11	12	0	3.00	
13	43	29	110	44	162	12	49	10	34	4.35	4.90	5.64	4.87	4.94	14	17	17	0	8.57	
19	49	23	36	3	5	16	25	1	2	6.61	7.51	6.41	7.12	6.91	27	4	8	0	3.23	
41	140	17	47	0	0	0	0	0	0	4.48	4.45	4.55	6.09	4.89	18	13	8	0	3.24	
25	36	13	16	23	56	14	31	4	9	6.70	6.51	4.35	5.32	5.72	20	11	16	0	7.35	
5	6	7	8	10	15	19	28	7	12	6.04	6.95	3.95	5.12	5.51	13	11	8	0	3.18	24 days ; 16th to 22d [not observed.
17	28	9	16	2	3	13	34	1	2	6.64	6.13	3.50	5.32	5.40	23	8	13	0	5.73	
16	60	7	23	30	103	8	36	43	76	1.30	2.90	2.10	6.00	3.08	14	17	5	0	1.11	
16	19	23	29	4	4	30	32	13	19	6.93	7.91	4.12	7.89	6.71	22	9	8	0	1.84	
32	65	16	50	13	52	13	22	15	16	4.58	4.77	6.06	7.68	5.77	23	8	8	0	6.14	
23	40	17	24	13	25	14	25	0	0	7.35	5.80	5.03	7.58	6.44	24	7	7	0	2.68	
8	15	46	59	0	0	7	9	0	0	7.09	5.70	4.58	7.77	6.28	24	7	7	0	....	
8	15	18	32	43	56	2	2	0	0	6.87	7.96	7.95	8.90	7.92	28	3	1	0	0.10	
12	20	68	116	16	38	0	0	0	0	6.83	7.55	6.93	8.45	7.44	27	4	3	0	1.25	
22	35	26	52	43	113	3	3	4	5	4.64	5.74	5.51	7.16	5.76	20	11	5	0	2.74	
10	12	19	26	8	12	24	37	9	13	5.22	6.19	6.74	6.35	6.12	22	9	9	0	4.65	
8	10	21	27	37	58	1	1	6	8	....	....	....	....	....	21	10	6	0	1.39	
2	3	57	110	15	35	8	19	9	20	3.40	5.10	6.50	5.60	5.15	19	12	9	0	5.92?	
3	5	11	17	35	56	22	34	11	17	4.51	5.51	5.70	6.01	5.43	16	15	11	0	3.33	
4	9	6	11	7	18	46	100	1	2	....	....	....	....	....	20	11	11	0	3.60	
19	44	7	20	36	89	25	79	14	41	3.77	4.09	4.16	3.00	3.76	14	17	11	0	5.99	
4	10	28	69	17	34	14	36	1	2	4.09	4.90	4.16	4.70	4.46	16	15	12	0	5.07	
20	31	22	40	20	34	9	19	13	23	7.16	7.29	7.22	6.41	7.02	23	8	12	0	2.60	
14	20	56	93	16	31	2	2	4	5	4.12	4.54	4.93	5.58	4.79	17	14	10	0	6.78	
10	34	32	79	1	3	2	2	1	2	4.51	5.51	6.32	6.00	5.58	21	10	9	0	2.86	
7	14	10	19	4	10	18	38	1	1	4.57	5.87	4.75	5.27	5.16	18	13	4	0	0.32	3 days, 18th to 20th, [not observed.
53	151	42	75	9	29	1	2	4	8	2.91	5.01	5.54	5.12	4.64	17	14	4	0	....	
14	27	18	33	25	32	22	34	3	6	8.35	8.51	8.48	9.29	8.63	22	9	5	0	1.55	

MONTH OF JULY, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	72.64	82.51	93.61	80.58	82.23	100	66	17.8	16.2	0	0	9	11	20	27
Fort Belknap	72.83	84.58	94.39	81.42	83.31	103	66	19.7	17.3	0	0	0	0	0	0
Fort Graham	74.54	84.08	98.25	82.72	84.90	104	69	19.1	15.9	0	0	0	0	4	9
Fort Gates	77.58	86.06	93.00	83.54	85.04	96	74	11.0	11.0	0	0	0	0	2	9
Fort Croghan	73.68	85.80	92.94	81.26	83.42	98	67	14.6	16.4	0	0	3	5	2	5
Austin	72.58	82.85	91.80	78.74	81.49	97	68	15.5	13.5	0	0	1	1	3	10
Fort Martin Scott	69.96	79.29	90.38	75.70	78.84	97	66	18.2	12.8	0	0	3	3	8	13
San Antonio	72.03	79.13	85.19	80.29	79.16	90	70	10.8	9.2	1	1	4	5	32	50
Fort Merrill	74.70	82.68	88.80	81.12	81.82	96	71	9.2	10.8	0	0	0	0	4	8
Corpus Christi	77.93	82.70	88.41	83.00	82.96	92	74	9.0	9.0	1	2	6	19	10	30
Fort Brown	75.83	87.58	88.64	77.61	82.41	94	72	11.6	10.4	0	0	7	22	8	23
Ringgold Barracks	76.19	84.71	94.77	81.64	84.33	102	75	17.7	9.3	0	0	0	0	19	46
Fort McIntosh	75.23	89.77	97.45	83.19	86.41	104	72	17.6	14.4	0	0	6	11	30	43
Fort Duncan	79.87	84.56	92.61	87.25	86.07	96	77	9.9	9.1	3	6	2	7	50	125
Fort Inge	72.64	82.12	91.51	80.54	81.70	95	71	13.3	10.7	0	0	13	31	54	111
Fort Lincoln	74.70	81.41	90.58	81.23	81.98	95	71	13.0	11.0	0	0	4	9	37	75
El Paso	79.61	93.96	97.35	83.22	88.53	106	72	17.5	16.5	7	10	5	13	40	69
Doña Ana	72.15	83.30	90.16	83.28	82.22	101	66	18.8	16.2	1	1	7	18	6	13
Socorro	67.26	79.35	94.23	79.00	79.96	103	62	13.0	17.0	6	10	3	5	6	9
Albuquerque	61.64	79.00	87.38	74.87	75.72	90	57	14.3	18.7	15	29	0	0	3	12
Cebolletta	68.80	82.16	88.83	74.45	78.56	95	63	16.4	15.6	15	15	9	9	5	5
Las Vegas	62.44	83.56	85.12	68.48	74.90	96	54	21.1	20.9	8	17	1	1	11	23
Santa Fé	58.00	79.00	87.30	67.30	72.90	97	50	24.1	22.9	2	2	3	4	2	4
Abiquiu	62.96	74.90	82.74	75.64	74.06	85	57	10.9	17.1	0	0	22	42	1	2
San Diego	......	......	......	......	......	....	....	......	......	3	5	1	1	3	4
Rancho del Chino	58.45	74.63	87.38	67.12	71.89	91	55	19.1	16.9	0	0	0	0	0	0
Monterey	52.12	59.04	62.55	54.52	57.06	72	46	14.9	11.1	0	0	1	1	2	5
Benicia Barracks	54.58	68.16	78.67	61.32	65.68	94	49	28.3	16.7	0	0	2	6	0	0
Camp Far West	58.74	75.22	92.32	75.83	75.53	103	53	27.5	22.5	0	0	0	0	0	0
Astoria	56.58	62.61	68.29	58.74	61.55	76	54	14.5	7.5	3	3	3	3	4	5
Fort Steilacoom	51.54	65.32	75.87	63.00	63.93	92	46	28.1	17.9	29	..	0	..	3	..

MONTH OF JULY, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
20	29	50	92	7	10	2	2	0	0	8.16	8.22	8.16	8.96	8.37	28	3	2	0	0.16	
44	98	36	59	10	30	1	2	3	3	7.16	7.19	6.22	9.48	7.51	27	4	2	0	....	
63	103	25	40	20	48	0	0	0	0	2.09	5.51	7.80	8.58	5.95	27	4	2	0	0.11	
23	90	42	130	32	86	9	20	0	0	8.66	8.00	7.12	8.74	7.98	26	5	5	0	0.49	
36	78	60	100	10	24	0	0	0	0	7.13	7.19	6.65	8.90	7.46	25	6	6	0	2.99	
44	108	18	35	9	18	3	3	0	0	4.41	5.80	5.29	7.74	5.81	22	9	5	0	....	
49	92	40	68	2	4	0	0	0	0	5.38	6.12	6.61	8.00	6.53	24	7	4	0	0.80	
63	94	13	18	2	3	2	2	0	0	7.22	9.03	6.90	7.87	7.78	25	6	6	0	3.07	
34	89	21	34	0	0	0	0	0	0	5.19	5.80	5.93	8.74	6.42	24	7	9	0	4.19	
60	184	20	28	11	18	1	1	2	3	4.70	4.09	4.93	7.29	5.26	17	14	7	0	3.97	
91	201	12	26	2	6	0	0	0	0	6.00	6.12	6.48	6.93	6.38	21	10	6	0	3.65	
7	19	87	305	0	0	0	0	0	0	5.22	5.67	4.81	7.25	5.75	20	11	6	0	2.20	
80	156	6	10	2	3	0	0	0	0	6.19	5.74	5.87	7.52	6.33	21	10	6	0	0.78	
49	136	15	36	0	0	0	0	0	0	7.03	7.19	7.83	9.00	7.76	26	5	5	0	1.10	
48	100	0	0	0	0	0	0	0	0	4.06	4.67	5.38	8.22	5.58	20	11	6	0	2.84	
83	208	0	0	0	0	0	0	0	0	2.61	4.74	5.67	7.83	5.21	22	9	4	0	0.89	Temp. for last 17
13	30	4	7	4	13	32	59	13	31	7.64	8.93	8.25	6.13	7.74	29	2	9	0	1.05	[days.
28	68	9	14	18	35	6	10	20	49	5.14	7.17	4.30	5.50	5.53	23	8	4	0	....	
48	93	10	17	12	17	13	16	13	19	5.74	6.06	5.00	4.26	5.26	24	7	7	0	0.40	
10	46	19	66	6	14	3	9	2	5	5.87	8.25	5.90	4.93	6.24	22	9	7	0	0.30	
16	20	11	17	9	9	30	41	10	15	7.87	7.70	5.90	1.93	5.85	24	7	5	0	0.25	Clearness inaccurate.
7	14	6	16	7	11	6	7	8	14	7.84	9.44	9.00	3.64	7.48	25	0	10	0	5.10	First 25 days.
26	51	7	8	26	44	7	11	13	24	7.10	6.90	5.75	6.00	6.59	26	5	4	0	....	
0	0	0	0	50	63	0	0	0	0	5.92	4.90	3.54	5.25	4.90	20	11	6	0	....	
5	6	15	20	50	125	33	54	9	10	0.09.	6.19	8.38	5.00	4.91	22	9	0	0	0.00	
0	0	0	0	85	166	37	86	0	0	4.93	6.93	8.48	8.09	7.11	28	3	0	0	0.00	
3	5	0	0	9	14	33	82	8	12	0.44	3.18	5.56	1.56	2.68	10	15	3*	0	0.01	Last 25 days. *Heavy mist falling.
2	5	6	17	25	106	80	307	9	31	5.93	8.06	9.25	9.03	8.47	26	4	0	0	0.00	
14	27	21	37	29	68	0	0	5	8	9.22	9.38	9.29	9.51	9.35	30	1	0	0	0.00	
0	0	1	1	51	87	12	17	47	127	2.13	4.25	5.38	3.74	3.87	13	18	0	0	0.00	
0	..	0	..	23	..	28	..	41	..	3.74	4.06	5.83	6.19	4.96	16	15	2	0	0.36	

MONTH OF AUGUST, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	54.74	63.77	67.94	59.74	61.55	85	48	23.5	13.5	5	5	0	0	16	41
Fort Preble	59.29	65.35	71.67	64.29	65.19	85	52	19.8	13.2	17	42	5	9	3	9
Fort Constitution	56.90	68.00	75.38	61.70	65.49	86	48	20.5	17.5	17	40	9	27	5	14
Fort Independence	63.00	67.74	76.00	69.64	69.02	85	51	16.0	18.0	0	0	40	104	0	0
Fort Adams	63.42	69.84	74.84	68.42	69.13	82	54	12.9	15.1	9	32	12	52	8	28
Fort Trumbull	63.35	70.93	74.74	66.61	68.91	82	51	12.1	17.9	3	4	22	44	1	1
Fort Hamilton	65.60	70.30	76.30	70.50	70.67	83	57	12.3	13.7	7	21	12	27	4	7
Fort Columbus	69.71	74.74	78.93	72.61	74.00	85	65	11.0	9.0	12	20	6	11	6	10
West Point	61.39	68.03	77.13	68.06	68.65	88	52	19.4	16.6	27	72	6	10	1	2
Watervliet Arsenal	60.74	66.45	78.58	68.64	68.60	88	50	19.4	18.6	0	0	0	0	3	9
Plattsburg Barracks	57.19	65.03	74.32	68.93	66.37	85	48	18.6	18.4	0	0	9	10	3	3
Madison Barracks	57.87	68.03	72.74	63.16	65.45	85	38	19.6	27.4	10	23	12	20	3	4
Fort Ontario	60.03	69.19	73.74	63.80	66.69	87	50	20.3	16.7	0	0	23	41	0	0
Fort Niagara	60.51	68.48	72.81	64.93	66.93	86	50	19.1	16.9	2	8	27	77	4	6
Alleghany Arsenal	60.88	69.61	79.38	66.74	69.15	89	46	19.9	23.1	28	29	39	49	12	12
Carlisle Barracks	58.74	71.38	80.58	66.51	69.30	90	43	20.7	26.3	7	19	4	11	22	50
Fort Mifflin	65.58	72.49	84.01	71.84	73.49	92	50	14.5	23.5	5	13	17	45	8	21
Fort McHenry	69.54	73.90	77.19	73.93	73.64	88	58	14.4	15.6	18	30	17	30	9	15
Fort Washington	65.83	77.48	84.64	70.51	74.61	96	52	21.4	12.6	..	..	..	..	..	..
Fort Monroe	70.22	74.54	80.10	75.30	75.04	92	62	17.0	13.0	6	14	31	85	21	55
Fort Moultrie	78.29	83.16	86.03	81.19	82.17	92	66	9.8	16.2	9	48	19	104	0	0
Fort Marion	76.35	83.87	82.87	79.06	80.54	91	69	10.5	11.5	3	3	13	58	17	44
Key West Barracks	79.68	84.71	87.26	82.90	83.64	90	75	6.4	8.6	14	48	5	15	54	229
Fort Myers	80.45	83.50	86.00	83.70	83.41	94	76	10.6	7.4	10	13	13	28	7	9
Fort Brooke	76.09	81.93	83.35	79.51	80.22	88	71	7.8	9.2	0	0	16	35	30	77
Fort Meade	73.13	82.67	88.48	79.00	80.82	96	68	15.2	12.8	5	17	8	21	17	44
Barrancas Barracks	77.29	82.93	85.42	79.83	81.37	95	66	13.6	15.4	8	15	11	34	4	12
Mount Vernon Arsenal	73.29	81.38	85.22	77.00	79.22	98	66	18.8	13.2	8	21	13	17	12	22
East Pascagoula	80.05	85.61	88.24	82.29	84.05	96	72	12.0	14.0	8	10	7	8	15	25
Baton Rouge Arsenal	73.41	84.32	87.06	75.96	80.19	99	67	18.8	13.2	9	13	18	27	23	38
Fort Towson	73.54	82.58	92.83	81.22	82.54	100	64	17.5	18.5	7	15	1	1	25	35
Fort Washita	73.38	85.58	98.51	81.38	84.71	105	60	20.3	24.7	9	35	20	40	16	33
Fort Gibson	74.61	85.93	96.19	82.48	84.80	105	62	20.2	22.8	0	0	0	0	0	0
Fort Scott	70.45	76.74	85.03	74.29	76.63	96	63	19.4	13.6	14	30	28	49	9	16
Jefferson Barracks	69.32	76.58	83.12	75.16	76.05	94	62	18.0	14.0	6	8	5	7	11	17
St. Louis Arsenal	68.23	79.48	88.16	72.51	77.09	96	63	18.9	14.1	15	16	8	13	20	27
Newport Barracks	70.93	72.85	80.79	76.07	75.16	87	58	11.8	17.2	30	63	14	24	1	2
Fort Gratiot	56.06	67.22	70.54	63.58	64.34	89	39	24.7	25.3	12	34	25	74	5	14
Fort Mackinac	59.87	65.82	68.06	59.73	63.37	77	45	13.4	19.4	16	38	4	9	40	110
Fort Brady	52.83	63.38	68.16	60.77	61.28	81	40	19.7	21.3	3	11	1	1	24	80
Fort Howard	55.25	65.83	73.38	63.77	64.56	85	38	20.4	26.6	19	59	4	9	9	23
Fort Ripley	53.16	64.87	71.29	57.12	61.61	85	42	23.4	19.6	1	1	9	30	14	36
Fort Snelling	61.16	66.45	75.64	70.38	68.41	89	49	20.6	19.4	18	38	24	50	2	4
Fort Dodge	64.54	74.35	78.22	68.06	71.29	93	50	21.7	21.3	1	2	19	51	11	21
Fort Leavenworth	67.58	73.64	80.03	72.25	73.37	91	61	17.7	12.4	9	15	30	41	1	1
Fort Kearney	61.80	72.38	81.35	67.74	70.82	97	46	26.2	24.8	12	26	42	98	9	20
Fort Laramie	62.07	72.68	83.87	72.16	72.69	99	56	26.3	16.7	4	7	23	43	7	13

MONTH OF AUGUST, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	5	26	49	17	41	41	91	17	39	4.12	5.38	5.00	5.54	5.01	17	14	6	0	0.90	
8	16	13	30	29	65	35	62	14	27	6.32	6.74	6.38	4.58	6.00	21	10	7	0	2.22	
7	10	28	56	7	19	32	63	19	58	5.16	6.38	6.90	7.00	6.36	22	9	7	0	1.92	
34	69	12	17	26	76	7	28	8	27	5.22	6.96	6.70	6.53	6.35	22	9	5	0	1.44	
2	8	31	82	21	46	23	45	18	60	5.84	5.19	5.22	5.77	5.50	17	14	8	0	3.65	
9	14	5	11	56	102	1	1	27	36	4.90	5.60	5.10	5.20	5.20	20	11	12	0	9.65 ?	
11	22	16	45	30	84	11	25	33	96	5.80	6.40	6.11	6.09	6.10	21	10	10	0	2.64	
17	36	22	51	21	50	14	26	26	45	6.61	6.51	6.33	6.54	6.49	20	11	8	0	3.47	
8	17	41	79	12	22	4	4	25	49	4.16	4.87	4.23	5.51	4.69	15	16	8	0	2.58	
4	9	45	129	24	69	38	118	10	40	7.70	7.72	7.46	7.42	7.56	16	15	7	0	2.39	Weather inaccurate.
16	17	42	65	22	25	17	25	15	25	3.80	3.90	3.67	3.45	3.70	11	20	10	0	3.22	
8	8	28	68	31	72	31	87	1	2	5.29	5.61	6.25	5.74	5.72	21	10	10	0	3.53	
35	61	0	0	38	81	0	0	28	47	7.77	7.87	8.29	8.19	8.03	18	13	7	0	1.32	
21	34	15	35	16	33	6	18	33	83	1.68	4.96	5.51	4.19	4.08	14	17	11	0	2.26	
3	4	6	12	24	42	4	4	8	8	1.48	3.35	4.74	6.29	3.96	11	20	12	0	2.66	
3	3	8	19	3	6	69	110	8	11	7.54	7.51	8.03	7.80	7.72	20	11	7	0	1.49	Clearness inaccurate.
13	29	25	48	35	66	8	16	13	32	3.25	5.34	5.27	5.40	4.81	16	15	13	0	3.03	
5	12	8	15	23	31	31	41	13	21	4.96	5.48	5.22	5.16	5.20	16	15	9	0	3.30	
..	..	..	..	..	..	..	..	..	..	3.12	4.26	4.00	5.03	4.11	12	19	6	0	3.51	
9	20	1	3	48	114	1	2	7	14	4.12	5.16	4.79	4.75	4.75	16	15	13	0	4.00	
24	112	25	120	33	143	4	14	10	49	4.35	4.16	4.61	5.09	4.55	16	15	16	0	5.89	
31	78	33	66	16	32	11	13	0	0	5.84	6.30	6.09	7.38	6.40	23	8	10	0	3.38	
24	91	20	62	4	18	1	4	2	11	4.00	4.19	4.32	6.45	4.74	17	14	6	0	6.80	
24	43	29	63	24	53	6	7	11	14	5.38	6.54	6.45	7.45	6.45	21	10	14	0	3.61	
15	45	8	23	20	55	13	32	17	41	5.87	5.19	4.80	5.86	5.43	18	13	16	0	6.35	
13	44	14	27	9	18	10	22	0	0	7.00	5.54	4.00	6.20	5.69	21	10	11	0	6.47	
6	23	2	7	24	85	8	21	61	101	1.49	2.55	2.77	4.67	2.87	16	15	14	0	6.15	Clearness inaccurate
15	25	16	24	4	8	43	63	13	31	4.29	4.90	3.38	5.16	4.43	15	16	12	0	8.69	
29	60	9	19	19	46	13	21	24	28	2.68	2.58	2.71	4.81	3.19	10	21	12	0	5.32	
18	34	17	28	10	16	13	19	12	20	5.29	4.74	3.58	6.38	4.99	16	15	15	0	7.96	
9	15	18	25	1	2	5	9	0	0	1.87	2.58	4.06	1.58	2.52	14	17	6	0	7.34	
8	32	12	33	36	60	8	12	0	0	8.03	8.77	8.64	9.29	8.66	18	13	4	0	1.40	
1	1	68	72	16	18	0	0	0	0	5.26	5.35	5.45	5.26	5.33	17	14	3	0	1.15	
7	13	43	98	12	28	2	2	2	4	3.38	4.19	5.29	6.16	4.76	14	17	9	0	3.89	
18	29	12	18	5	8	24	39	5	9	4.93	5.93	6.67	6.48	6.00	20	11	9	0	7.06	
16	22	22	29	5	8	3	7	0	0	6.51	6.58	6.45	1.16	5.18	15	16	7	0	6.40	
2	4	43	76	16	40	4	10	4	15	3.61	5.51	6.06	6.19	5.34	20	11	8	0	6.60	
7	16	20	44	25	38	16	27	7	11	6.77	6.45	6.70	6.77	6.67	16	15	5	0	3.56	
0	0	20	60	4	14	31	86	3	6	6.93	8.41	8.67	1.51	6.38	17	14	11	0	0.55	
16	64	8	27	28	78	36	129	5	16	3.58	4.28	4.16	3.35	3.83	13	18	7	0	3.67	
2	2	29	79	21	31	15	29	3	5	3.77	4.77	3.71	5.35	4.40	14	17	8	0	2.67	
13	38	34	90	16	31	20	48	4	10	6.00	4.83	4.77	6.29	5.47	17	14	15	0	3.15	
16	32	12	23	20	34	4	9	20	41	6.41	6.80	7.93	8.16	7.32	21	10	7	0	3.29	
17	57	24	100	12	24	12	27	8	17	3.41	3.93	4.29	4.96	4.15	15	16	15	0	1.95	
15	22	42	53	9	15	3	4	3	5	2.70	2.87	3.58	4.83	3.50	15	16	10	0	5.02	
24	86	20	61	0	0	0	0	2	6	3.12	3.41	3.70	3.96	3.55	12	19	9	0	2.78	
17	45	1	2	11	30	3	7	18	39	5.81	6.90	5.90	6.97	6.39	23	8	7	0	0.78	

MONTH OF AUGUST, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Atkinson	69.37	78.94	86.45	76.00	77.69	94	56	16.3	21.7	9	24	27	55	9	19
Fort Arbuckle	72.90	84.12	93.74	81.09	82.96	101	56	18.0	27.0	4	4	15	18	6	11
Fort Worth	73.80	84.61	96.09	83.70	84.55	103	61	18.5	23.5	0	0	8	12	8	10
Fort Belknap	70.69	84.67	98.61	84.83	84.70	106	57	21.3	27.7	14	37	0	0	2	4
Fort Graham	76.29	84.96	101.75	85.82	87.20	108	64	20.8	21.2	0	0	0	0	8	14
Fort Gates	78.54	90.61	96.03	85.54	87.68	100	72	12.3	15.7	0	0	1	6	1	3
Fort Croghan	74.68	88.23	99.00	84.68	86.65	103	69	16.4	17.6	2	5	2	4	2	2
Austin	74.51	84.41	96.38	83.19	84.62	98	69	13.4	15.6	0	0	3	6	5	11
Fort Martin Scott	74.96	79.25	88.19	80.64	80.76	94	72	13.2	8.8	1	1	1	2	10	13
San Antonio	76.03	82.35	90.87	86.58	83.96	94	72	10.0	12.0	0	0	0	0	10	19
Fort Merrill	76.40	85.22	94.54	83.54	84.95	100	72	15.5	12.9	1	1	0	0	3	5
Corpus Christi	79.03	84.09	91.48	84.38	84.74	93	74	8.3	10.7	0	0	3	3	5	14
Fort Brown	77.48	94.96	91.36	79.51	85.83	99	73	13.2	12.8	0	0	0	0	2	6
Ringgold Barracks	78.03	86.03	99.96	84.25	87.07	103	73	15.9	14.1	0	0	0	0	4	16
Fort McIntosh	77.03	94.23	102.67	87.35	90.32	106	70	15.7	20.3	0	0	8	14	24	42
Fort Duncan	82.09	86.03	94.75	90.03	88.25	98	77	9.8	11.2	3	10	4	9	70	164
Fort Inge	72.74	82.35	94.35	83.09	83.13	98	67	14.9	16.1	3	3	7	13	53	114
Fort Lincoln	75.67	82.51	95.03	84.51	84.43	99	70	14.6	14.4	0	0	7	9	12	19
El Paso	80.13	91.55	92.71	83.55	86.98	100	72	13.0	15.0	7	15	1	4	30	45
Doña Ana	70.05	81.87	93.32	80.77	81.50	99	65	17.5	16.5	3	7	24	33	4	7
Socorro	63.45	80.90	92.29	77.20	78.46	103	57	22.5	21.5	8	9	15	19	9	15
Cebolletta	65.51	78.16	82.22	71.74	74.41	96	60	21.6	14.4	20	24	6	7	5	7
Fort Union	51.96	75.32	76.26	54.45	64.49	93	45	28.5	19.5	11	33	10	29	9	37
Abiquiu	61.96	71.55	77.45	72.51	70.87	85	58	14.1	12.9	1	2	15	25	5	9
San Diego	......	......	......	......	......	....	....	......	......	4	9	2	3	8	11
Rancho del Chino	59.80	76.58	89.03	69.32	73.68	104	58	30.3	15.7	0	0	0	0	0	0
Monterey	56.45	64.58	71.14	59.19	62.84	75	50	12.2	20.8	5	6	1	1	0	0
Benicia	59.19	73.03	80.25	67.80	70.07	91	53	20.9	17.1	0	0	2	2	1	2
Fort Miller	67.19	83.24	100.10	79.30	82.71	111	62	28.3	20.7	2	2	1	1	3	3
Camp Far West	59.96	77.19	92.64	75.38	76.29	104	52	27.7	24.3	0	0	1	1	0	0
Astoria	57.97	67.84	72.16	60.29	63.76	80	54	14.2	19.8	0	0	1	2	7	8
Fort Steilacoom	55.80	66.58	77.70	64.22	66.32	92	48	25.7	18.3	8	..	12	..	0	..

MONTH OF AUGUST, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
40	90	18	51	5	8	4	9	1	1	4.16	5.84	5.85	4.86	5.18	16	15	8	0	....	
23	32	33	53	17	31	7	12	2	2	8.35	9.09	8.96	9.67	9.01	25	6	6	0	1.16	Clearness inaccurate.
16	19	50	61	8	13	1	3	0	0	9.35	9.16	8.12	8.80	8.86	26	5	3	0	0.06	
32	73	44	98	8	23	5	11	5	12	8.32	7.64	6.16	9.77	7.97	27	4	2	0	....	
41	82	12	21	50	98	0	0	2	4	1.74	6.48	7.03	7.70	5.74	26	5	4	0	0.21	
45	170	43	130	23	90	5	19	0	0	9.19	8.90	7.00	8.32	8.35	29	2	3	0	2.34	
52	122	32	58	27	40	3	4	1	1	8.60	8.62	6.61	9.60	8.36	30	1	3	0	1.00	
58	122	11	23	10	20	8	14	6	11	4.45	6.67	5.74	7.67	6.13	24	7	3	0	....	
41	50	49	57	3	4	0	0	3	3	7.32	8.03	6.77	9.25	7.84	25	6	3	0	1.20	
72	130	30	44	4	7	3	5	0	0	7.22	7.74	8.32	7.83	7.78	27	4	2	0	0.60	
41	91	30	47	1	2	2	2	0	0	6.51	6.74	6.80	9.29	7.33	28	3	4	0	1.31	
56	197	29	51	20	33	0	0	3	3	6.00	4.35	4.87	7.41	5.66	23	8	3	0	0.23	
99	212	15	34	8	19	0	0	0	0	5.16	5.38	5.83	6.64	5.75	20	11	4	0	1.80	
9	26	111	346	0	0	0	0	0	0	7.67	7.19	6.09	8.35	7.32	29	2	1	0	0.02	
87	162	5	7	0	0	0	0	0	0	7.87	7.61	5.42	8.87	7.44	29	2	1	0	0.00	
33	93	9	18	0	0	0	0	1	2	7.32	8.12	8.00	8.70	8.03	29	2	2	0	0.70	
41	88	0	0	0	0	0	0	0	0	5.87	5.83	5.93	8.61	6.56	27	4	5	0	3.53	
92	185	0	0	4	5	1	1	5	6	4.12	3.29	4.29	5.58	4.32	24	7	3	0	0.39	
6	12	8	19	3	5	53	98	5	9	8.48	9.61	9.58	7.10	8.69	26	5	9	0	2.49	
29	56	12	26	10	19	2	3	23	49	6.26	7.22	5.64	5.97	6.27	25	6	7	0	2.32	
20	32	3	6	16	23	14	22	24	50	6.17	6.13	4.97	4.84	5.53	24	7	9	0	2.07	
17	18	9	13	4	5	13	18	17	44	6.03	5.87	3.70	1.51	4.78	17	14	9	0	2.18	
1	4	14	47	8	12	5	10	7	22	6.06	8.61	8.93	4.64	7.06	..	..	..	..	....*	Clearness inaccurate.
7	11	4	7	33	57	0	0	3	12	6.87	5.55	3.77	4.12	5.08	16	15	18	0	....*	*Amount of rain very
11	14	24	37	30	80	29	58	5	8	1.19	6.64	8.67	5.67	5.54	23	8	0	0	0.00	[great.
0	0	20	33	59	106	44	77	0	0	4.93	6.77	7.90	7.90	6.87	27	4	0	0	0.00	
4	6	7	10	6	15	27	47	11	16	2.58	6.25	6.74	3.83	4.85	18	13	0	0	0.00	
8	18	1	2	58	208	52	197	0	0	5.77	7.32	8.87	8.48	7.61	27	4	1	0	0.00	
1	1	11	14	15	30	14	26	0	0	10.00	10.00	10.00	10.00	10.00	31	0	0	0	0.00	
5	10	26	62	17	31	5	8	5	6	8.74	9.12	8.96	9.41	9.06	31	0	0	0	0.00	
3	4	3	6	50	94	2	6	53	144	1.81	3.90	5.45	4.58	3.93	13	18	6	0	2.30	
10	..	0	..	2	..	58	..	34	..	3.19	3.48	6.03	7.54	5.06	15	16	4	0	0.81	

MONTH OF SEPTEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	50.76	61.33	63.90	54.73	57.68	83	36	25.3	21.7	8	16	7	19	11	17
Fort Preble	54.63	60.73	65.86	58.76	60.00	85	43	25.0	17.0	14	40	10	28	5	7
Fort Constitution	52.83	60.40	65.76	55.63	58.65	88	32	29.4	26.6	20	60	14	38	6	27
Fort Independence	57.36	61.43	67.43	60.66	61.72	77	39	14.3	22.7	0	0	15	59	3	6
Fort Adams	59.26	63.20	68.00	63.13	63.40	85	42	21.6	21.4	25	91	12	44	18	41
Fort Trumbull	58.30	64.30	70.90	61.20	63.67	83	41	19.3	22.7	3	13	43	110	1	2
Fort Hamilton	60.40	65.80	70.40	64.80	65.35	83	49	17.7	16.3	27	80	13	28	3	7
Fort Columbus	61.50	69.03	73.63	67.30	67.86	88	51	20.1	16.9	9	11	15	33	7	14
West Point	56.90	63.47	72.53	62.07	63.74	90	44	26.3	19.7	40	121	8	22	0	0
Watervliet Arsenal	53.66	61.96	71.26	60.43	61.83	91	36	19.2	25.8	6	28	0	0	0	0
Plattsburg Barracks	51.23	58.96	69.16	58.23	59.39	92	33	32.6	26.4	10	12	5	7	2	2
Madison Barracks	51.03	62.66	66.76	56.26	59.18	84	29	24.8	30.2	3	10	27	60	3	8
Fort Ontario	54.00	64.33	78.50	55.46	63.07	93	36	29.9	27.1	0	0	34	72	1	1
Fort Niagara	55.26	64.16	67.03	59.80	61.58	87	40	25.4	21.6	6	6	21	69	5	12
Alleghany Arsenal	55.46	64.83	75.46	62.16	64.48	95	41	30.5	23.5	7	10	41	54	20	20
Carlisle Barracks	54.20	62.80	74.66	63.66	63.83	97	36	33.2	27.8	5	13	4	10	49	119
Fort Mifflin	60.47	66.03	83.16	67.93	69.40	97	43	27.6	26.4	7	24	24	68	18	40
Fort McHenry	65.03	68.66	74.47	69.33	69.37	93	54	23.6	15.4	12	20	23	56	13	27
Fort Washington	60.16	70.73	76.03	65.40	68.08	99	40	30.9	28.1	17	44	30	112	3	6
Fort Monroe	65.46	67.67	74.93	70.57	69.66	92	53	22.3	16.7	2	7	46	139	12	27
Fort Moultrie	68.06	76.00	79.46	73.76	74.32	91	52	16.7	22.3	34	142	34	134	6	21
Fort Marion	75.63	78.80	78.76	76.73	77.48	84	59	6.5	18.5	11	26	47	174	52	195
Key West Barracks	78.20	82.00	84.23	80.83	81.31	88	76	6.7	5.3	15	53	22	105	36	146
Fort Myers	77.27	80.35	85.55	78.43	80.40	92	69	11.6	11.4	26	38	35	53	6	11
Fort Brooke	70.96	77.00	80.96	76.40	76.33	88	59	11.7	17.3	11	21	45	93	34	48
Fort Meade	68.70	79.40	83.93	73.94	76.47	92	58	15.5	18.5	6	10	26	82	40	92
Barrancas Barracks	70.16	77.83	83.23	75.50	76.68	90	47	13.3	29.7	12	26	23	72	3	6
Mount Vernon Arsenal	66.70	74.33	83.40	77.70	75.53	96	46	20.5	29.5	14	22	59	128	10	20
East Pascagoula	72.59	81.74	88.43	79.07	80.46	95	52	14.5	28.5	27	39	18	33	15	30
Baton Rouge Barracks	66.00	79.50	84.86	70.20	75.14	93	47	17.9	28.1	20	33	32	59	30	70
Fort Towson	67.93	78.63	90.80	77.63	78.75	100	42	21.3	36.7	7	15	11	21	25	41
Fort Washita	70.23	81.70	91.66	77.43	80.25	100	48	19.8	32.2	5	12	10	17	36	68
Fort Gibson	67.50	79.86	89.46	76.46	78.32	103	42	24.7	36.3	4	5	0	0	1	1
Fort Scott	64.36	74.00	85.36	70.66	73.59	97	34	23.4	39.6	5	12	13	32	9	15
Jefferson Barracks	65.30	74.10	81.80	72.18	73.53	94	37	20.5	36.5	10	15	4	7	4	7
St. Louis Arsenal	66.53	68.40	82.53	69.40	71.71	96	38	24.3	33.7	12	31	7	12	10	15
Newport Barracks	60.86	68.73	77.06	72.60	69.77	96	48	26.2	21.8	33	78	6	14	2	3
Fort Gratiot	54.56	63.46	70.73	61.10	62.46	91	32	28.5	30.5	15	40	22	74	8	16
Fort Mackinac	51.43	62.03	64.90	57.03	58.85	74	38	15.2	20.8	22	53	1	4	61	164
Fort Brady	49.56	59.66	60.66	55.40	56.32	80	33	23.7	23.3	8	41	6	31	27	97
Fort Howard	55.16	63.00	69.26	57.23	61.16	87	31	25.8	31.2	17	63	8	28	16	24
Fort Ripley	51.76	61.03	69.16	58.16	60.03	86	30	23.0	30.0	11	32	10	38	11	26
Fort Snelling	58.43	69.20	77.80	70.90	69.08	92	34	22.9	35.1	16	38	15	30	5	10
Fort Dodge	61.77	69.56	77.46	66.03	68.71	90	41	11.3	27.7	4	13	6	23	4	11
Fort Leavenworth	63.90	72.20	79.68	70.63	71.60	90	43	18.4	28.6	6	8	10	17	2	5
Fort Kearney	60.46	69.96	81.26	66.66	69.58	96	33	26.4	36.6	5	16	25	55	7	14
Fort Laramie	57.90	70.86	79.33	69.20	69.32	89	47	19.7	22.3	2	6	13	47	4	10

MONTH OF SEPTEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in nches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	18	20	62	23	56	29	67	13	42	4.36	5.56	5.43	4.56	4.97	16	14	7	0	3.30	
5	14	18	29	24	58	29	44	15	28	6.00	6.96	7.00	5.36	6.33	17	13	8	0	4.41	
7	14	23	45	19	47	19	45	12	31	5.36	6.56	6.26	6.86	6.26	18	12	8	0	3.23	
31	74	2	6	49	119	0	0	6	20	2.20	6.13	5.70	5.40	4.86	15	15	6	0	1.24	
7	21	21	45	12	28	17	54	8	34	4.53	4.76	4.73	4.53	4.63	15	15	7	0	3.49	
22	40	4	6	34	55	7	10	6	11	4.20	5.06	5.05	5.11	4.85	13	17	12	0	5.31?	
17	39	13	34	15	42	9	28	23	58	5.30	5.70	5.20	6.30	5.62	16	14	7	0	1.31	
21	38	19	41	27	63	9	14	13	26	6.26	6.93	6.83	6.40	6.60	18	12	6	0	1.26	
6	18	41	78	14	23	1	2	10	26	3.67	4.97	5.63	5.43	4.92	14	17	12	0	1.22	
2	9	44	125	17	51	28	93	23	69	7.83	7.86	6.46	6.10	7.06	18	12	8	0	1.66	
6	6	47	78	26	26	12	13	12	11	3.33	5.60	5.40	6.20	5.13	17	13	7	0	3.36	
7	14	40	107	20	36	13	42	7	13	5.13	5.70	6.06	6.50	5.84	19	11	7	0	3.35	
41	66	0	0	26	33	0	0	18	45	7.06	7.26	7.66	7.33	7.32	18	12	6	0	1.74	
27	48	10	23	13	37	5	8	33	102	2.86	4.36	5.66	5.10	4.49	15	15	10	0	2.99	
9	13	7	10	17	34	15	29	4	8	3.56	5.53	5.40	5.93	5.10	17	13	11	0	2.62	
7	10	7	11	1	3	44	81	3	4	8.96	7.56	8.13	8.16	8.20	18	12	6	0	1.95	
10	26	12	28	28	46	10	16	11	32	5.01	5.17	6.04	6.20	5.60	17	13	10	0	0.94	
17	34	10	16	24	38	15	24	6	10	4.60	5.70	6.50	6.22	5.86	20	10	3	0	0.50	
23	78	0	0	14	48	3	8	20	62	3.10	4.53	4.50	5.73	4.46	17	13	6	0	2.27	
18	38	6	10	31	60	4	4	1	2	4.80	5.33	5.20	6.70	5.52	20	10	6	0	0.76	
11	36	2	6	4	17	5	13	24	96	5.53	4.73	5.46	6.53	5.56	18	12	7	0	0.29	
5	15	0	0	0	0	5	6	0	0	5.23	5.03	4.76	5.43	5.11	17	13	14	0	5.60	
11	36	8	22	11	36	10	27	7	22	3.26	2.80	3.40	3.83	3.32	7	23	14	0	14.00	
11	16	10	18	15	22	3	3	14	20	4.06	5.36	5.26	7.23	5.72	14	16	15	0	8.01	
10	21	0	0	8	9	4	5	4	8	5.63	5.30	4.66	7.40	5.75	18	12	14	0	6.93	
1	4	0	0	2	3	13	29	4	15	4.73	5.63	4.26	4.73	4.84	17	13	13	0	7.67	
14	61	3	11	8	29	2	9	50	86	0.96	4.63	4.90	6.26	4.19	15	15	7	0	1.66?	
11	20	5	7	1	2	5	8	15	27	7.00	6.90	4.93	8.53	6.84	20	10	5	0	4.42	
25	52	6	12	2	4	4	5	19	28	5.28	4.90	4.39	6.34	5.22	16	13	5	0	5.83	29 days.
16	28	5	7	4	5	4	6	9	18	5.66	6.80	4.90	7.53	6.22	20	10	5	0	0.59	
9	21	10	15	0	0	4	5	0	0	0.56	3.73	3.96	0.56	2.20	15	15	1	0	0.01	
10	15	27	65	10	13	15	17	0	0	6.66	7.93	7.43	8.80	7.70	23	7	3	0	0.60	
48	65	27	36	7	9	3	6	0	0	4.80	6.70	7.74	4.60	5.96	20	10	2	0	3.14	
13	17	37	72	32	64	3	3	5	6	6.40	6.33	6.26	7.03	6.50	26	4	2	0	0.15	
12	18	19	32	8	13	20	30	11	27	7.23	7.93	7.83	8.03	7.75	26	4	2	0	0.81	
2	3	18	20	19	27	11	18	3	4	7.80	8.33	7.47	3.43	6.76	22	8	2	0	0.68	
6	12	59	76	4	10	7	14	3	7	5.43	5.93	5.66	5.80	5.71	20	10	5	0	1.43	
2	5	25	37	23	37	5	9	9	16	4.40	5.90	5.36	6.00	5.16	18	12	10	0	3.46	
5	9	16	35	0	0	10	31	0	0	6.66	9.53	9.00	2.36	6.89	14	16	13	0	0.50?	Weather inaccurate.
15	54	12	58	22	68	22	91	8	34	3.30	4.23	4.13	3.00	3.66	12	18	11	0	4.82	
4	6	34	87	4	12	7	9	2	4	3.26	3.13	4.23	5.90	4.13	12	18	12	0	3.26	
17	38	40	91	6	14	5	14	9	20	4.70	3.93	5.00	6.26	4.97	15	15	13	0	8.74	
27	51	17	26	14	26	4	7	16	32	5.73	6.43	7.56	7.40	6.78	20	10	9	0	3.64	
24	98	37	95	27	118	0	0	5	15	3.96	5.30	5.03	5.60	4.97	17	13	10	0	2.59	
4	6	74	96	5	9	0	0	9	10	5.46	5.47	5.26	6.00	5.54	21	9	5	0	1.10	
14	32	43	122	0	0	0	0	2	2	5.03	5.10	5.60	6.50	5.56	19	11	10	0	2.60	
13	49	2	6	13	45	3	8	23	71	4.63	5.43	5.06	5.90	5.35	16	14	6	0	0.42	

MONTH OF SEPTEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Atkinson	67.53	75.00	80.63	73.13	74.07	94	50	19.9	24.1	3	9	2	3	3	4
Fort Arbuckle	67.20	79.23	86.00	76.00	77.13	99	38	21.9	39.1	10	12	12	13	3	4
Fort Worth	68.23	79.00	90.03	77.40	78.66	100	44	21.3	34.7	6	10	17	21	10	14
Fort Belknap	71.40	80.53	90.26	77.53	79.93	100	46	20.1	33.9	22	57	0	0	13	28
Fort Graham	68.83	77.90	94.66	79.20	80.15	105	49	24.9	31.1	1	1	9	18	15	25
Fort Gates	71.83	79.80	89.33	79.46	80.10	98	54	17.9	26.1	5	17	1	5	15	52
Fort Croghan	67.27	79.77	90.23	76.27	78.38	100	50	21.6	28.4	1	1	27	32	6	9
Austin	69.03	78.36	90.03	77.70	78.78	98	54	19.2	24.8	0	0	2	8	14	48
Fort Martin Scott	65.83	76.76	83.86	72.53	74.74	92	47	17.3	27.7	6	10	14	22	12	22
San Antonio	72.36	77.46	85.16	76.43	77.85	92	64	14.2	13.8	3	11	16	31	34	55
Fort Merrill	71.13	79.14	85.60	78.00	78.70	94	57	15.3	21.7	4	9	10	16	19	39
Corpus Christi	74.96	76.85	86.26	80.46	80.38	92	61	11.6	19.4	3	12	41	158	15	55
Fort Brown	69.40	84.43	82.16	75.33	77.83	92	62	14.2	15.8	2	5	29	58	48	108
Ringgold Barracks	73.98	82.28	87.20	78.88	80.58	97	69	16.4	11.6	2	5	7	15	48	112
Fort McIntosh	72.03	86.07	91.87	79.87	82.46	102	62	19.5	20.5	3	5	37	51	20	30
Fort Duncan	78.40	82.75	89.71	84.06	83.78	96	74	12.2	19.8	16	30	17	38	42	100
Fort Inge	68.73	78.80	89.23	76.86	78.40	95	59	16.6	19.4	0	0	24	35	61	132
Fort Lincoln	71.03	78.53	89.63	79.23	79.61	97	59	17.4	20.6	2	7	16	30	12	20
Fort Fillmore	71.93	82.35	86.00	78.13	79.60	96	52	16.4	27.6	3	6	10	21	43	56
Cebolletta	62.76	66.96	71.53	65.16	66.60	86	54	19.4	12.6	20	21	4	4	6	8
Fort Union	46.80	66.35	69.93	47.73	57.70	89	41	31.3	16.7	9	18	10	18	7	22
Abiquiu	57.73	63.27	69.89	68.55	64.86	74	52	9.1	12.9	0	..	18	..	0	..
San Diego	......	......	......	......	......	....	....	......	......	5	5	9	9	12	13
Rancho del Chino	57.13	72.26	84.40	66.46	70.06	95	51	24.9	16.1	0	0	0	0	0	0
Monterey	57.00	59.66	60.93	58.96	59.14	68	53	8.9	6.1	5	6	0	0	0	0
Benicia Barracks	55.83	64.96	75.66	59.86	64.08	86	51	21.9	13.1	0	0	0	0	2	7
Fort Miller	60.53	74.57	93.53	73.00	75.41	100	56	23.6	19.4	3	3	1	2	11	13
Camp Far West	55.03	69.63	85.16	67.56	69.34	98	49	28.7	20.3	1	1	0	0	0	0
Astoria	53.00	59.63	64.87	55.09	58.15	69	48	10.9	10.1	6	10	2	2	16	23
Fort Steilacoom	49.06	57.66	66.73	54.60	57.01	76	40	19.0	17.0	0	0	20	34	6	6

MONTH OF SEPTEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
40	81	51	120	4	7	2	4	0	0	7.00	7.06	7.03	7.03	7.03	21	9	2	0	....	Weather inaccurate.
7	9	27	55	10	13	9	12	4	8	8.60	8.63	7.60	8.96	8.47	23	7	1	0	1.60	
10	11	30	41	6	8	1	1	0	0	8.43	8.00	7.16	8.86	8.11	28	2	1	0	0.06	
23	48	44	132	7	19	4	5	1	2	7.53	6.93	5.83	8.40	7.17	26	4	2	0	....	
35	53	24	40	32	47	0	0	0	0	1.56	6.30	6.40	7.16	5.35	19	11	4	0	0.26	
47	144	33	89	12	38	1	2	3	3	7.43	7.20	6.93	8.20	7.44	23	7	3	0	0.02	
60	100	8	11	13	16	0	0	5	5	5.30	7.13	7.30	9.27	7.25	25	5	2	0	1.35	
30	58	11	17	0	0	9	15	17	55	2.56	6.06	5.96	8.43	5.75	22	8	3	0	....	
39	64	14	18	0	0	0	0	0	0	6.20	6.83	5.93	8.80	6.94	23	7	5	0	1.44	
43	75	8	11	0	0	4	11	0	0	7.36	7.83	7.86	7.93	7.73	24	6	3	0	1.20	
17	39	7	8	0	0	0	0	0	0	4.83	6.16	5.10	8.90	6.25	25	5	9	0	2.93	
28	44	4	4	10	11	0	0	10	15	4.36	4.50	4.50	7.60	5.25	18	12	8	0	4.96	
26	53	12	24	0	0	0	0	1	2	5.36	5.60	5.96	6.16	5.77	17	13	5	0	5.60	
21	49	29	78	1	3	0	0	0	0	6.26	5.10	4.56	7.63	5.89	21	9	10	0	5.21	
53	83	0	0	1	1	0	0	4	4	6.00	5.90	4.97	7.37	6.06	24	6	9	0	2.73	
36	92	1	3	0	0	0	0	0	0	6.33	6.83	7.40	8.01	7.14	23	7	5	0	1.36	Temp. in excess.
7	15	0	0	0	0	0	0	1	1	4.63	4.66	4.20	8.36	5.46	18	12	5	0	0.73	
61	118	0	0	1	1	0	0	12	14	4.93	5.83	6.60	5.33	5.70	21	9	4	0	0.27	
6	12	1	1	1	1	33	53	8	14	8.48	9.43	9.30	7.60	8.70	27	3	5	0	1.40	
22	30	13	18	15	20	14	28	12	15	5.00	5.16	4.10	2.40	4.16	16	14	11	0	5.82	
9	29	9	30	3	8	10	24	12	26	6.03	8.40	8.36	2.96	6.44	16	14	12	0	4.63	Clearness inaccurate.
10	..	0	..	82	..	0	..	1	..	6.62	5.58	4.34	6.14	5.67	..	..	6	0	....	Weather inaccurate.
7	8	8	10	35	62	41	63	3	4	*1.33	5.93	8.53	7.36	5.79	24	6	1	0	0.02	*Dense fogs.
0	0	0	0	79	148	39	86	0	0	4.06	5.50	7.93	8.00	6.37	23	7	0	0	0.00	
2	3	5	7	6	10	22	29	10	21	2.60	4.20	5.60	5.30	4.42	14	16	2	0	0.01	
3	6	4	12	65	260	39	153	0	0	5.26	6.00	7.86	8.86	7.00	23	7	3	0	0.04	
2	3	4	8	16	36	19	36	1	3	9.27	9.80	9.86	9.50	9.68	30	0	1	0	0.01	
7	8	29	61	3	7	6	7	3	4	8.06	8.26	8.10	8.96	8.34	28	2	4	0	0.36	
1	1	1	1	26	51	22	33	17	39	4.52	5.22	5.85	5.50	5.27	17	13	6	0	1.94	Incomplete.
30	51	2	4	15	29	4	10	33	61	1.30	2.56	4.10	5.76	3.43	10	20	13	0	2.68	Weather inaccurate.

MONTH OF OCTOBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N.E.		E.	
Fort Sullivan	47.79	53.87	55.48	50.38	51.88	75	31	23.1	21.9	8	23	3	7	9	32
Fort Preble	46.03	52.19	57.12	51.00	51.56	68	30	16.4	21.6	17	48	8	18	2	5
Fort Constitution	45.03	52.90	58.70	48.70	51.33	68	30	16.7	21.3	12	28	6	24	6	11
Fort Independence	47.87	52.32	61.51	52.87	53.64	71	33	17.4	20.6	0	0	34	104	9	10
Fort Adams	52.71	56.32	60.77	57.35	56.79	72	36	15.2	20.8	23	65	7	30	15	41
Fort Trumbull	49.80	55.70	59.90	54.90	55.07	71	34	15.9	21.1	1	2	33	74	1	2
Fort Hamilton	54.40	57.30	63.30	58.30	58.32	74	41	15.7	17.3	12	37	11	26	7	15
Fort Columbus	51.73	57.48	62.70	57.38	57.32	71	38	13.7	29.3	14	32	9	22	1	2
West Point	48.00	53.55	60.64	53.39	53.89	74	36	20.1	27.9	29	66	2	4	2	5
Watervliet Arsenal	45.29	53.16	60.54	49.67	52.16	74	31	21.8	21.2	0	0	0	0	0	0
Plattsburg Barracks	45.77	51.35	59.45	49.70	51.57	74	27	22.4	24.6	6	8	4	5	1	1
Madison Barracks	45.48	52.64	55.90	48.38	50.60	76	28	25.4	22.6	6	20	11	24	7	13
Fort Ontario	46.29	51.87	56.22	49.19	50.89	75	32	24.1	18.9	0	0	15	33	0	0
Fort Niagara	47.74	52.06	55.48	49.90	51.30	72	38	20.7	13.3	0	0	12	30	3	3
Alleghany Arsenal	47.41	50.58	59.54	49.12	51.66	74	29	23.3	22.7	3	4	17	8	15	8
Carlisle Barracks	43.77	53.16	61.54	50.06	52.13	75	28	22.9	24.1	0	0	0	0	23	41
Fort Mifflin	52.51	61.58	71.39	58.71	61.05	86	38	25.0	23.0	1	3	18	31	5	7
Fort McHenry	54.61	58.38	62.96	59.48	58.86	71	43	12.1	15.9	30	44	7	12	0	0
Fort Washington	50.00	57.83	69.35	54.90	58.02	80	34	22.0	24.0	12	45	17	55	1	2
Fort Monroe	57.03	60.42	66.67	61.32	61.36	78	40	16.6	21.4	6	11	35	92	8	20
Fort Moultrie	60.70	69.25	73.71	66.77	67.61	84	41	16.4	26.6	20	81	37	158	3	11
Fort Marion	67.93	76.45	76.83	72.19	73.35	88	46	14.7	27.3	12	22	43	118	34	101
Key West Barracks	76.61	80.45	83.03	79.13	79.80	87	73	7.2	6.8	18	75	38	180	54	214
Fort Myers	74.19	76.45	83.69	78.63	78.24	87	63	8.8	14.2	36	52	37	63	13	19
Fort Brooke	66.32	73.93	80.65	74.59	73.87	85	55	11.1	18.9	4	8	44	90	32	48
Fort Meade	64.48	72.41	81.77	71.61	72.57	88	50	15.4	22.6	3	6	37	58	12	27
Mount Vernon Arsenal	57.38	65.26	78.90	65.80	66.83	87	41	20.2	25.8	13	35	42	85	15	27
New Orleans Barracks	61.48	72.07	78.83	66.29	69.67	89	47	19.3	22.7	30	57	11	18	47	100
Baton Rouge Barracks	54.03	68.09	78.16	61.45	65.43	87	37	21.6	28.4	24	46	19	35	22	45
Fort Towson	53.03	61.58	75.74	62.64	63.25	86	42	23.8	21.2	9	14	10	19	16	28
Fort Washita	52.61	63.48	77.09	63.70	61.72	92	38	30.3	23.7	18	29	8	16	22	35
Fort Gibson	50.16	58.45	73.96	60.49	60.76	90	32	29.3	28.7	15	21	18	25	2	3
Fort Scott	48.58	57.19	70.51	56.16	58.11	89	24	30.9	34.1	2	4	10	20	7	8
Jefferson Barracks	48.96	57.48	66.39	56.54	57.52	82	26	24.5	31.5	11	13	7	11	3	5
St. Louis Arsenal	46.80	55.00	65.00	53.74	55.13	81	26	25.9	29.1	17	44	0	0	10	13
Newport Barracks	48.19	53.45	63.22	57.06	55.48	80	28	24.5	27.5	36	98	3	6	2	4
Fort Gratiot	44.80	50.87	57.42	49.96	50.76	78	21	27.8	29.2	0	0	1	2	1	2
Fort Mackinac	41.07	51.74	57.80	47.58	49.55	70	29	20.5	20.5	16	39	1	3	40	98
Fort Brady	39.80	46.67	51.77	40.70	44.73	70	24	25.3	20.7	4	13	3	10	24	80
Fort Howard	38.85	45.80	54.45	45.35	46.11	72	20	25.9	26.1	16	33	3	5	1	2
Fort Ripley	37.35	43.83	51.74	40.51	43.36	72	18	28.6	25.4	22	48	6	13	5	7
Fort Snelling	40.89	50.25	60.35	55.70	52.05	76	20	23.0	32.0	9	20	23	55	5	10
Fort Dodge	40,64	46.48	59.00	47.09	48.30	76	18	27.7	30.3	7	15	18	30	8	23
Fort Leavenworth	46,25	51.32	65.38	55.41	54.59	81	25	26.4	29.6	28	39	4	8	0	0
Fort Kearney	39,72	51.46	63.75	46.88	50.45	81	16	30.6	34.4	42	111	7	11	5	6
Fort Laramie	41,70	51.06	62.61	50.87	51.56	79	20	27.4	31.6	12	45	18	65	1	2
Fort Atkinson	50,77	56.16	65,12	58,25	57.57	86	36	28.3	21.6	37	106	15	29	3	8

MONTH OF OCTOBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	3	29	90	29	77	37	92	8	24	4.77	4.90	4.83	4.45	4.73	18	13	10	1	4.50	
3	8	14	38	45	91	10	18	25	53	6.32	7.12	6.41	5.54	6.34	17	14	9	1	8.43	
5	8	23	67	18	38	24	53	30	94	4.93	5.51	5.61	6.03	5.52	18	13	9	1	5.47	
11	24	1	1	48	110	0	0	6	32	2.48	5.35	5.93	6.19	5.00	18	13	8	0	3.95	
4	8	19	55	9	30	32	85	15	68	4.06	4.68	4.61	5.81	4.79	15	16	9	0	4.47	
15	35	2	3	29	64	4	13	39	90	4.30	5.10	4.80	5.50	4.92	14	17	10	2	9.52	
5	10	12	23	42	126	7	22	28	76	5.40	6.00	5.50	6.80	5.92	17	14	9	0	2.99	
10	15	29	64	17	36	12	25	32	88	6.00	5.87	5.32	6.03	5.80	19	12	11	0	2.95	
4	9	38	80	14	29	2	6	33	87	3.03	3.81	4.39	5.51	4.18	15	16	14	1	4.02	
4	10	25	81	25	82	54	202	16	52	6.80	6.74	6.61	6.45	6.65	14	17	8	1	2.62	
5	6	40	53	34	37	21	22	13	20	2.67	3.45	4.00	3.48	3.40	12	19	10	0	4.61	
13	31	31	85	28	72	20	76	8	21	2.48	3.19	3.90	4.00	3.64	9	22	12	2	6.09	
51	81	0	0	35	66	0	0	23	71	7.29	7.64	6.80	5.83	6.89	13	18	10	0	2.48	
25	75	23	67	12	36	7	21	42	154	1.35	3.32	3.71	4.16	3.13	10	21	10	2	2.58	
3	7	14	23	35	87	16	60	3	6	1.60	4.58	4.90	5.58	4.16	12	19	10	1	1.45	
7	16	8	20	1	1	81	191	4	10	7.54	7.16	7.83	7.41	7.48	15	16	9	1	1.18	
11	19	14	38	33	77	10	19	32	92	5.23	6.60	6.50	6.11	6.11	18	13	10	0	3.03	Temp. in ex. at 3 p.m.
4	7	9	17	18	23	18	28	22	58	5.74	5.87	6.32	6.58	6.06	20	11	6	0	2.20	Therm. protected.
10	38	4	15	18	51	9	23	29	116	2.67	3.80	4.35	6.12	4.24	14	17	7	0	1.95	
6	13	0	0	34	90	3	4	32	64	6.25	5.87	5.45	7.06	6.15	19	12	9	0	2.02	
5	14	12	41	20	60	7	26	20	61	6.64	7.19	5.77	8.19	6.94	21	10	8	0	1.28	
6	13	3	6	1	1	10	22	2	6	6.38	6.80	5.90	7.53	6.65	23	8	9	0	0.71	
2	7	3	8	3	11	4	14	2	6	4.42	4.45	4.29	5.26	4.60	16	15	8	0	9.45?	
5	6	3	5	10	13	3	5	16	22	2.35	6.54	7.25	7.51	5.91	21	10	7	0	1.66	
5	10	5	8	5	13	19	30	3	6	7.71	7.12	6.48	8.67	7.49	24	7	5	0	1.85	
2	5	1	2	1	2	1	4	0	0	6.00	7.26	6.22	7.00	6.62	25	6	7	0	2.04	
20	30	5	7	5	6	4	7	14	29	6.32	6.96	7.13	7.93	7.08	24	7	3	0	2.07	
14	29	0	0	0	0	5	10	9	15	4.41	5.10	4.89	6.52	5.23	17	12	8	0	3.70	29 days.
15	26	7	11	11	17	10	15	16	25	4.64	6.32	6.48	7.83	6.32	20	11	6	0	2.32	
6	19	14	28	3	9	8	12	0	0	0.93	2.16	2.19	1.74	1.76	16	15	6	0	1.13	
5	11	18	37	4	7	40	61	1	1	7.35	7.80	8.41	8.70	8.06	20	11	6	0	2.60	
3	8	31	40	0	0	0	0	0	0	1.03	1.68	3.32	1.00	1.76	15	16	3	0	9.35?	Weather inaccurate.
9	18	23	72	29	81	17	33	16	32	5.83	6.54	6.03	6.61	6.25	16	15	5	0	2.01	Clearness inaccurate
15	34	26	47	8	10	43	77	6	15	4.48	7.06	7.19	7.41	6.53	20	11	7	0	2.26	
9	14	23	50	9	20	32	57	5	9	7.28	8.03	7.51	3.00	6.44	18	13	6	0	1.51	
8	14	28	50	10	20	14	39	9	27	2.97	3.94	5.16	4.93	4.25	13	18	7	0	7.48?	
10	20	42	61	27	43	28	53	15	26	4.22	4.80	4.25	4.70	4.49	15	16	10	2	2.64	
8	22	7	17	9	32	42	137	1	3	4.12	8.48	8.70	1.87	5.79	14	17	14	6	0.65?	
13	35	7	25	35	115	36	131	2	9	1.87	3.06	2.74	2.03	2.43	12	19	7	4	4.04?	
1	3	32	100	10	18	19	52	1	2	3.35	3.45	3.58	3.80	3.55	9	22	8	3	1.10	
10	22	36	80	11	28	14	35	16	53	5.00	4.90	5.25	6.03	5.29	15	16	6	2	1.93	
13	24	15	29	27	73	12	25	20	59	6.93	7.38	8.87	8.32	7.88	20	11	5	0	1.18	
19	52	18	72	16	22	17	49	9	16	4.60	5.35	4.48	5.40	4.96	16	15	8	0	2.43	
3	3	40	63	10	23	3	5	26	44	5.32	6.35	5.74	6.41	5.93	20	11	4	0	1.68	
16	41	22	61	4	5	2	4	10	24	5.83	5.51	5.38	6.35	5.77	22	9	3	0	0.52	
1	5	0	0	6	30	2	10	44	170	6.51	6.70	6.87	7.60	6.92	23	8	5	1	0.36	
15	43	21	37	8	13	14	30	7	13	8.06	8.90	8.29	8.38	8.53	24	7	2	0	....	

MONTH OF OCTOBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Arbuckle.........	51.48	63.22	75.93	60.58	62.80	90	36	27.2	26.8	8	11	7	13	6	9
Fort Worth...........	54.03	66.03	79.00	65.87	66.23	89	42	26.8	24.2	14	18	20	26	5	8
Fort Belknap..........	52.54	65.00	83.60	63.64	66.20	96	38	29.8	28.2	23	57	6	9	0	0
Fort Graham..........	56.22	65.33	84.33	67.22	68.37	96	41	27.6	27.4	3	9	17	37	13	21
Fort Gates............	51.09	68.19	79.70	65.03	66.00	88	42	22.0	24.0	17	38	18	58	12	30
Fort Croghan..........	55.32	62.97	77.20	64.13	64.90	92	46	27.1	18.9	9	29	31	78	3	3
Austin................	60.77	67.29	80.87	72.32	70.31	91	47	20.7	23.3	7	36	12	51	1	3
Fort Martin Scott......	53.12	65.19	76.96	60.80	64.02	84	40	20.0	24.0	28	46	19	26	3	4
San Antonio...........	64.41	69.70	78.58	71.29	71.00	85	53	14.0	18.0	10	19	27	46	20	23
Fort Merrill...........	62.12	70.67	83.06	72.12	72.00	93	50	21.0	22.0	8	16	9	18	7	11
Corpus Christi.........	65.96	73.51	79.41	73.61	73.12	86	54	12.9	19.1	4	13	17	68	12	25
Fort Brown	63.38	84.00	76.67	68.87	73.23	89	52	15.8	21.2	21	40	35	55	13	20
Ringgold Barracks	65.35	76.71	84.54	73.43	75.01	98	52	23.0	23.0	6	13	13	32	30	74
Fort McIntosh	60.48	78.06	84.10	70.32	73.24	96	49	22.8	24.2	8	15	15	28	21	31
Fort Duncan	68.14	73.77	81.72	74.85	74.62	88	61	13.4	13.6	14	34	17	36	34	70
Fort Inge..............	56.38	68.51	82.45	64.61	68.00	90	40	22.0	28.0	10	17	19	30	41	102
Fort Lincoln	59.19	69.00	82.83	68.64	69.92	92	44	22.1	25.9	2	3	48	81	0	0
Fort Fillmore..........	41.48	72.61	82.45	56.19	63.18	94	32	30.8	31.2	11	16	18	21	35	61
Fort Conrad...........	42.24	59.28	83.11	59.04	60.92	90	31	29.1	29.9	24	36	19	25	6	7
Cebolletta*............	53.39	57.67	61.64	57.03	57.43	70	45	12.6	12.4	14	36	3	4	8	13
Fort Union............	34.09	54.90	58.32	39.16	46.62	74	27	29.4	19.6	15	39	10	17	11	38
Abiquiu...............	43.63	49.44	63.35	56.71	53.28	72	37	18.7	16.3	..	..	..	..	..	..
San Diego	......	......	......	......	......	....	....	......	......	2	4	8	8	26	30
Rancho del Chino......	52.45	72.25	85.29	64.35	68.58	99	47	30.4	21.6	0	0	5	18	1	3
Monterey	56.45	60.74	63.83	58.83	59.96	75	48	15.1	19.9	2	3	0	0	2	2
Benicia Barracks.......	57.41	66.20	77.09	62.74	65.86	91	52	15.1	13.9	0	0	1	1	4	9
Fort Miller............	53.16	70.06	87.03	69.22	69.87	98	46	28.1	23.9	1	1	0	0	8	9
Camp Far West	50.12	63.48	82.16	63.06	64.70	91	44	26.3	20.7	0	0	0	0	0	0
Fort Steilacoom	47.22	53.80	60.77	49.83	52.90	67	39	14.1	13.9	4	5	12	19	11	13

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* Post removed to *Laguna*, about 11 miles southward, on the 15th ; no observations being taken on the 12th, 13th, and 14th. The general character of the locality is similar, and the altitude somewhat less.

MONTH OF OCTOBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	2	24	55	24	56	10	15	2	3	8.48	8.77	8.80	9.51	8.89	28	3	4	0	1.07	
8	14	33	120	9	13	0	0	1	1	7.64	8.06	8.29	9.54	8.38	24	7	4	0	2.24	
32	96	17	66	13	27	2	4	24	46	8.19	8.32	8.29	8.61	8.35	27	4	3	0	....	
28	50	0	0	54	130	0	0	2	6	1.25	6.33	7.12	7.80	5.62	22	9	4	0	5.25	
21	63	33	93	8	24	8	19	7	15	7.67	7.77	6.70	7.96	7.52	24	7	5	0	2.62	
20	61	8	15	37	70	2	2	14	30	6.97	8.39	7.65	9.29	8.07	27	4	3	0	3.52	
24	77	2	3	16	46	3	6	29	69	4.83	6.29	6.51	8.00	6.41	23	8	6	0	....	
22	40	18	42	2	2	0	0	0	0	5.32	6.93	7.45	7.90	6.90	21	10	2	0	1.15	
28	40	12	16	6	10	5	6	9	15	7.16	7.48	7.54	7.48	7.41	26	5	3	0	0.40	Weather inaccurate.
28	41	21	38	8	18	9	13	3	4	5.00	6.61	7.76	8.41	6.94	24	7	3	0	0.37	
30	88	19	44	8	10	2	2	24	69	4.83	5.32	5.41	6.67	5.56	19	12	6	0	2.71	
6	12	14	28	9	13	15	26	11	17	6.96	7.25	7.29	7.41	7.23	25	6	3	0	4.10	
19	51	10	30	13	35	4	11	19	51	6.74	6.12	5.74	6.96	6.39	22	9	3	0	1.20	
47	82	9	11	7	11	5	5	12	21	4.90	6.16	5.71	6.19	5.49	20	11	6	0	1.37	
36	75	10	17	2	3	0	0	9	21	6.38	7.70	7.83	8.74	7.64	26	5	4	0	1.50	
5	10	0	0	0	0	4	4	1	2	5.22	4.83	5.93	7.25	5.81	18	13	5	0	1.50	
35	58	2	6	12	21	2	3	23	28	4.93	5.80	6.77	5.45	5.74	21	10	5	0	1.36	
12	24	0	0	2	6	24	36	11	15	8.70	9.61	9.09	8.77	9.04	29	2	2	0	0.11	
13	14	1	2	3	4	31	44	32	50	7.30	7.28	8.05	8.24	7.72	27	4	1	0	0.03	
8	11	11	27	15	20	34	95	4	5	9.07	9.25	8.75	5.00	8.02	24	4	2	0	1.60	28 days.
2	5	17	29	8	15	6	8	15	24	6.00	8.32	9.00	3.64	6.81	20	11	2	2	0.61	
..	..	..	..	..	..	..	..	..	..	7.10	7.68	6.39	7.55	7.18	21	10	1	0	....	
19	20	13	17	32	60	22	38	2	3	5.00	6.22	8.03	6.70	6.49	19	12	1	0	0.01	
1	3	1	1	92	154	21	35	0	0	5.74	6.48	7.41	7.93	6.89	26	5	0	0	0.00	
3	3	4	5	8	11	26	45	16	31	3.51	6.09	7.58	8.38	6.39	22	9	1	0	0.20	
3	5	4	6	66	200	41	149	3	9	5.54	6.83	7.03	8.35	6.94	26	5	1	0	0.10	
3	4	7	10	11	20	19	30	0	0	9.21	9.25	9.23	9.29	9.25	31	0	1	0	0.00	
4	6	12	17	2	3	3	4	6	15	8.32	8.29	8.06	9.06	8.43	31	0	1	0	0.10	
35	58	6	8	29	86	5	10	22	44	0.16	1.25	4.25	5.29	2.74	10	21	12	0	3.96	

MONTH OF NOVEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Sullivan	32.10	35.83	38.27	34.66	35.21	51	16	15.8	19.2	12	28	4	12	6	26
Fort Preble	31.60	35.20	39.40	34.16	35.09	53	21	17.9	14.1	38	99	8	23	2	9
Fort Constitution	29.86	35.10	39.10	32.83	34.22	56	16	21.8	18.2	27	76	5	11	7	33
Fort Independence	33.13	36.11	42.21	36.23	36.92	58	21	21.1	15.9	0	0	40	133	2	2
Fort Adams	38.00	40.30	44.86	41.26	41.10	62	25	20.9	16.1	28	121	5	22	8	40
Fort Trumbull	35.83	40.53	44.46	38.70	39.88	60	23	20.1	16.9	2	4	17	39	5	24
Fort Hamilton	41.20	43.30	47.00	43.20	43.67	61	28	17.3	15.7	11	30	6	19	0	0
Fort Columbus	37.30	44.26	50.06	37.33	42.24	61	26	18.8	16.2	18	51	20	53	0	0
West Point	34.50	38.47	42.43	38.53	38.48	60	20	21.5	18.5	19	46	7	14	1	4
Watervliet Arsenal	31.36	36.70	41.53	34.43	36.00	60	12	24.0	24.0	18	52	4	16	1	3
Plattsburg Barracks	27.83	30.30	33.93	29.90	30.49	51	15	20.5	15.5	8	8	13	12	4	7
Madison Barracks	28.66	32.96	36.36	31.06	32.26	48	12	15.7	20.3	8	22	19	45	14	28
Fort Ontario	32.33	34.47	37.60	33.76	34.54	54	17	19.6	17.5	0	0	19	33	0	0
Fort Niagara	34.30	36.13	37.66	35.33	35.85	52	23	15.2	12.8	6	22	7	24	10	35
Alleghany Arsenal	32.26	36.43	41.26	36.26	36.55	64	14	27.5	22.5	7	9	27	39	4	5
Carlisle Barracks	32.70	37.40	42.26	35.43	36.95	65	10	28.1	26.9	9	19	10	23	3	6
Fort Mifflin	50.83	52.03	56.30	53.93	53.27	66	41	13.7	12.3	9	14	13	27	2	6
Fort McHenry	42.00	45.03	51.26	46.73	46.63	65	30	18.4	16.6	22	46	16	33	0	0
Fort Washington	37.16	43.16	51.50	40.53	43.09	74	24	30.9	19.1	7	26	20	65	2	8
Fort Monroe	46.00	46.13	53.16	48.57	48.46	67	31	18.5	17.5	1	2	45	101	1	2
Fort Moultrie	51.60	57.53	61.60	56.00	56.68	72	36	15.3	20.7	14	33	33	117	13	33
Fort Marion	59.50	67.96	70.36	63.90	65.18	86	40	20.8	25.2	13	17	34	117	20	51
Fort Pierce	66.00	73.46	77.27	69.40	71.53	86	46	14.5	25.5	16	47	16	60	22	60
Key West Barracks	72.43	75.86	79.00	74.53	75.46	84	60	8.5	15.5	31	150	32	127	28	94
Fort Myers	67.55	70.28	79.65	73.43	72.74	87	53	13.3	19.7	34	60	27	41	12	18
Fort Brooke	60.30	65.56	72.63	67.96	66.61	84	47	17.4	19.6	23	47	24	89	21	40
Fort Meade	58.46	64.63	75.53	64.96	65.89	85	36	19.1	29.9	10	29	7	15	8	20
Barrancas Barracks	53.10	59.33	65.23	57.66	58.83	80	30	21.7	28.8	13	14	19	33	8	24
Mount Vernon Arsenal	48.83	53.16	63.26	53.93	54.79	80	30	25.2	24.8	20	37	14	36	14	32
New Orleans Barracks	58.83	60.80	66.85	57.08	60.89	81	35	20.1	25.9	16	33	23	47	32	68
Baton Rouge Barracks	47.83	57.10	63.56	51.76	55.06	81	33	23.9	22.1	29	69	22	51	34	67
Fort Towson	41.90	45.93	55.76	46.70	47.60	72	22	24.4	25.6	5	8	5	15	10	28
Fort Washita	40.00	44.96	56.06	45.80	46.70	78	23	21.3	23.7	24	50	4	7	16	20
Fort Gibson	36.33	41.83	53.53	45.66	44.34	78	18	23.7	26.3	3	5	0	0	0	0
Fort Scott	33.46	37.83	45.40	39.40	39.02	67	20	29.0	19.0	8	33	20	41	12	27
Jefferson Barracks	36.06	41.08	46.46	40.75	41.09	64	24	22.9	16.1	21	35	22	40	11	13
St. Louis Arsenal	34.57	39.20	46.10	37.70	39.39	60	23	20.6	16.4	24	50	8	13	21	35
Newport Barracks	39.80	42.13	47.16	43.20	43.07	70	28	26.9	15.1	51	120	14	29	13	23
Fort Gratiot	32.10	35.66	38.53	34.26	35.14	58	21	22.9	14.1	3	6	4	9	18	33
Fort Mackinac	22.66	29.20	33.27	25.70	27.71	40	14	10.3	13.7	30	74	12	29	32	115
Fort Brady	21.97	28.30	33.26	23.03	26.64	59	10	22.4	16.6	2	3	2	5	36	112
Fort Howard	27.60	30.86	35.53	30.40	31.10	56	15	24.9	16.1	35	51	6	16	12	14
Fort Ripley	20.76	23.53	30.03	23.00	24.33	42	2	17.7	22.3	13	35	15	38	10	25
Fort Snelling	24.46	30.60	35.73	30.30	30.27	62	9	31.7	21.3	13	28	27	55	5	10
Fort Dodge	26.60	33.01	38.08	32.00	32.42	54	18	21.6	14.4	17	44	14	22	7	14
Fort Leavenworth	30.96	32.86	41.40	35.90	35.25	65	14	29.8	21.2	36	44	27	44	0	0
Fort Kearney	23.98	32.71	37.86	26.96	30.38	65	10	34.6	20.4	47	125	20	57	8	14

MONTH OF NOVEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	28	0	0	10	26	55	158	27	95	4.00	4.01	3.66	3.43	3.78	12	18	5	5	3.00	
2	11	1	3	33	78	18	33	18	42	6.53	6.70	6.73	4.86	6.20	16	14	6	6	6.58	
2	10	3	8	7	18	30	72	39	128	4.33	5.56	5.40	5.75	5.26	16	14	3	5	6.10	
23	54	0	0	30	97	0	0	11	63	3.00	4.60	4.93	5.83	4.59	13	17	6	3	4.40	
1	3	3	10	16	50	27	72	32	125	5.00	4.93	3.77	5.26	4.74	16	14	8	1	6.84	
2	8	0	0	12	32	8	19	74	161	5.03	4.08	4.05	4.04	4.30	15	15	8	1	11.03?	
0	0	4	10	42	118	24	87	33	88	4.50	3.90	3.50	5.40	4.32	14	16	6	2	4.39	
9	28	2	7	4	9	27	89	40	115	5.40	5.76	5.79	5.77	5.65	18	12	8	1	4.53	
5	13	18	31	18	30	7	19	45	114	2.93	2.90	2.77	3.87	3.11	9	21	7	3	4.31	
4	16	21	63	8	20	42	150	22	69	6.90	6.76	6.80	6.93	6.84	14	16	5	3	4.01	
4	5	10	14	21	20	27	33	33	51	1.10	1.63	1 96	2.00	1.67	8	23	4	5	3.30	
16	31	16	46	7	21	30	88	10	30	1.70	2.13	2.03	1.66	1.88	5	25	8	8	5.85	
36	51	0	0	27	69	0	0	38	103	5.26	5.76	5.66	4.33	5.25	14	16	9	8	4.97	
31	87	10	28	22	76	12	48	22	100	0.73	1.50	2.16	1.50	1.47	7	23	6	11	2.40	
4	4	7	3	40	109	16	44	10	18	1.60	2.43	2.50	2.56	2.27	7	23	10	7	3.67	
3	8	9	17	10	19	54	137	22	77	6.80	6.76	7.36	6.66	6.89	10	20	8	3	3.73	
1	2	4	11	43	85	21	61	27	71	3.00	3.93	4.13	4.40	3.86	11	19	10	1	3.41	Temp. inaccurate.
0	0	3	6	10	12	28	53	41	77	3.23	3.73	4.26	4.53	3.93	13	17	8	2	5.60	
5	21	3	7	20	76	17	50	42	177	2.40	3.03	3.53	4.16	3.03	10	20	10	1	3.66	
1	2	4	11	37	81	8	18	23	59	3.90	3.00	3.50	5.06	3.86	10	20	13	0	2.45	
9	14	11	27	12	43	14	51	14	48	4.90	4.92	4.78	6.23	5.20	15	15	11	0	3.34	
10	21	3	5	4	11	16	48	15	47	5.63	5.96	5.96	7.23	6.19	20	10	8	0	2.72	
8	24	18	41	4	11	17	24	16	29	4.23	4.56	4.43	4.73	4.49	21	9	8	0	....	
14	41	5	12	4	8	4	13	2	10	4.00	4.56	4.77	6.00	4.83	15	15	6	0	2.30	
9	14	8	11	12	21	6	6	12	13	2.13	6.33	7.56	7.60	5.90	20	10	4	0	0.55	
5	11	5	9	2	6	21	39	7	19	7.50	7.16	7.15	8.13	7.48	21	9	4	0	2.10	
1	2	0	0	7	15	6	18	6	17	6.60	7.53	7.36	8.20	7.42	22	8	6	0	1.28	
10	19	5	23	5	12	5	12	50	67	4.46	4.70	5.80	5.06	5.00	15	15	12	0	8.39	
20	39	4	8	6	10	3	7	35	90	4.53	4.93	4.73	5.83	6.00	16	14	11	0	6.99	
25	60	0	0	1	2	1	2	14	29	4.47	5.03	3.47	4.87	4.46	14	16	11	0	9.00	
11	21	4	9	1	2	8	11	11	26	4.56	5.16	4.76	5.16	4.91	15	15	11	0	8.91	
17	75	9	24	0	0	9	30	0	0	2.50	2.60	3.03	1.86	2.50	14	16	6	0	3.69	
1	2	11	20	5	6	38	48	12	20	5.70	5.60	6.33	6.76	6.10	19	11	6	0	5.15	
17	31	26	31	8	12	4	6	0	0	0.60	2.00	2.86	0.46	1.50	16	14	6	1	7.10?	Weather inaccurate.
8	15	4	6	27	74	9	13	28	61	3.56	3.86	3.66	3.83	3.73	12	18	10	2	5.49	
9	14	10	20	8	10	14	23	18	23	3.66	4.76	4.76	5.90	4.77	15	15	3	2	0.38?	
8	10	16	21	7	11	31	69	5	10	7.93	8.03	6.83	2.90	6.42	17	13	5	2	2.80	
1	2	14	33	7	16	9	18	8	21	3.60	4.20	4.33	4.10	4.06	14	16	6	1	10.53?	
11	26	2	3	39	85	26	50	17	35	1.46	1.76	2.26	2.50	2.00	11	19	6	7	3.25	
0	0	8	26	5	17	22	29	11	32	5.06	8.10	8.66	1.93	5.94	14	16	2	16	0.43?	
9	36	8	14	22	77	35	112	6	22	1.76	2.70	3.36	1.76	2.39	11	19	1	11	6.12?	
0	0	16	37	7	13	38	47	4	5	2.30	1.80	2.23	2.33	2.17	7	23	1	9	2.26	
9	22	28	42	10	16	26	55	9	18	2.60	2.43	4.70	4.20	3.48	12	18	1	6	2.82	
12	23	2	6	22	53	14	31	25	58	7.03	8.06	6.63	7.86	7.39	14	16	2	6	2.31	Clearness inaccurate
8	11	9	19	11	39	6	18	22	42	2.56	2.46	2.63	4.03	2.92	9	21	3	7	2.84	
0	0	21	25	16	26	1	1	19	37	3.70	3.80	3.23	3.93	3.67	8	22	4	6	3.18	
10	19	9	18	2	3	3	3	4	13	3.70	3.70	4.03	4.86	4.07	12	18	0	8	1.00	

MONTH OF NOVEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Laramie	27.06	31.30	40.66	33.93	33.24	65	13	31.8	20.2	0	0	56	167	0	0
Fort Atkinson	30.30	34.83	40.40	34.80	35.08	64	10	28.9	25.1	36	92	14	44	14	40
Fort Arbuckle	38.83	44.06	55.13	44.23	45.56	81	24	35.4	21.6	28	43	14	19	3	3
Fort Worth	41.86	48.90	56.33	48.10	48.80	80	26	31.2	22.8	43	51	15	17	4	6
Fort Belknap	37.03	49.46	57.23	42.86	46.64	82	22	35.4	24.6	66	146	3	7	0	0
Fort Graham	44.95	52.66	64.90	52.76	53.89	78	27	24.1	26.9	24	58	7	16	14	20
Fort Gates	41.36	50.26	61.93	49.73	50.82	79	22	28.2	28.8	28	86	19	53	6	16
Fort Croghan	41.03	48.93	60.83	50.10	50.22	84	28	33.8	22.2	5	25	39	119	0	0
Austin	51.96	56.30	67.43	60.73	59.00	88	33	29.0	26.0	13	58	3	13	5	14
Fort Martin Scott	42.00	49.26	60.00	49.13	50.10	80	23	29.9	27.1	45	79	9	22	5	8
San Antonio	49.53	54.20	63.26	58.13	56.28	81	30	24.7	26.3	15	22	43	64	7	7
Fort Merrill	51.33	57.23	69.46	60.56	59.64	87	22	27.4	37.6	24	91	9	18	5	10
Corpus Christi	54.83	59.90	65.76	60.33	60.21	83	28	22.8	32.2	12	46	10	29	4	8
Fort Brown	54.33	67.00	67.40	58.83	61.89	82	31	20.1	30.9	12	26	5	11	6	11
Ringgold Barracks	55.16	62.56	72.00	62.03	63.19	88	28	24.8	35.2	15	42	15	44	19	46
Fort McIntosh	50.23	61.30	70.63	58.83	60.25	91	23	30.8	37.2	10	20	17	29	6	7
Fort Duncan	56.23	61.23	69.18	61.96	62.15	85	32	22.9	30.1	19	49	10	20	21	44
Fort Inge	44.86	54.83	68.46	51.80	55.00	87	22	22.0	33.0	27	53	13	24	20	23
Fort Lincoln	47.10	53.33	67.70	54.43	55.64	84	29	28.4	26.6	12	27	33	58	2	2
Fort Fillmore	29.33	56.00	66.46	40.90	48.17	86	14	37.8	34.2	15	20	24	29	16	27
Fort Conrad	24.94	42.71	58.97	38.42	41.26	81	14	39.7	27.3	27	43	8	9	2	7
Cebolletta	43.36	46.93	48.93	46.30	46.38	64	30	17.6	16.4	11	30	3	8	11	38
Fort Union	23.90	38.26	48.73	32.76	35.91	54	15	18.1	20.9	20	62	8	22	7	17
San Diego	46.77	59.61	67.55	51.61	56.38	78	37	11.6	19.4	7	10	17	30	17	23
Rancho del Chino	48.56	62.16	73.10	57.73	60.39	81	36	20.6	24.4	0	0	10	41	0	0
Monterey	51.96	55.73	59.46	55.06	55.56	68	45	12.4	10.6	5	5	1	2	0	0
Benicia Barracks	51.56	56.43	64.83	54.90	56.93	76	41	20.1	15.9	10	27	1	4	15	27
Fort Miller	47.50	56.53	67.93	53.10	56.26	88	37	31.7	19.3	1	2	0	0	21	27
Camp Far West	45.76	53.03	66.70	51.93	54.35	82	32	27.5	22.3	0	0	0	0	0	0
Fort Steilacoom	42.66	47.23	51.06	44.13	46.27	63	29	16.7	17.3	0	0	16	31	10	16

MONTH OF NOVEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	10	0	0	0	0	0	0	57	124	3.83	4.43	5.00	5.56	4.71	14	16	0	7	0.52*	* One-tenth the depth
2	5	11	22	10	20	14	28	9	23	5.01	5.00	5.00	4.06	4.77	14	16	1	7	....	[of snow.
2	3	12	28	16	24	11	13	5	13	6.16	6.63	7.20	7.50	6.87	19	11	4	1	3.39	
3	4	32	41	3	4	0	0	1	1	8.06	7.89	7.53	7.89	7.89	22	8	7	0	4.92	
4	8	27	86	2	4	1	3	4	11	6.46	6.36	6.46	7.33	6.65	20	10	4	1	....	
0	0	0	0	41	76	4	8	30	67	1.26	4.26	6.06	6.66	4.56	15	15	10	0	7.40	
13	47	17	55	2	6	13	21	22	76	5.46	5.40	6.53	6.33	5.93	17	13	7	0	5.39	
9	32	2	7	27	73	9	18	29	96	4.70	5.67	7.27	8.57	6.55	19	11	7	0	9.80	
19	47	3	8	18	37	11	24	21	101	4.20	3.70	5.90	6.00	4.95	17	13	7	1	3.47	
10	15	37	73	7	14	1	1	6	10	5.33	5.06	6.43	6.86	5.92	19	11	6	0	1.50	
13	18	8	9	8	15	15	21	10	14	6.80	7.50	7.56	7.02	7.22	18	13	9	0	3.30	
12	27	19	43	4	5	4	6	13	31	4.70	5.70	6.00	7.20	5.90	19	11	6	0	0.85	
25	57	13	28	8	21	5	8	36	174	4.20	4.33	5.63	6.60	5.19	15	15	9	0	1.89	
9	17	14	29	14	30	51	110	9	18	4.16	4.70	5.40	5.46	4.93	13	17	3	0	3.00	
14	42	16	53	7	12	1	2	33	93	4.06	5.13	6.20	5.80	5.30	17	13	3	0	0.12	
41	70	7	8	3	3	2	2	34	66	3.97	5.13	5.90	6.37	5.34	18	12	6	0	0.87	
27	66	17	43	2	5	3	9	21	81	5.56	7.03	7.83	7.66	7.27	20	10	6	0	1.20	
10	21	0	0	0	0	0	0	2	2	3.33	5.76	6.76	6.53	5.59	20	10	9	0	1.43	
18	29	4	14	13	26	7	12	31	54	4.70	5.03	6.36	4.63	5.18	18	12	7	0	2.01	
7	13	0	0	0	0	25	41	17	30	7.26	8.60	8.26	8.16	8.07	25	5	8	9	2.13	
9	10	5	5	13	26	20	30	17	51	6.23	6.09	6.15	7.22	6.42	21	9	2	2	0.09	
9	25	8	24	9	34	23	85	27	90	6.86	7.41	7.56	7.60	7.35	23	7	0	2	0.81	Temp. inaccurate.
3	15	6	11	6	10	9	13	11	42	5.30	8.26	8.40	3.70	6.42	20	10	0	5	1.97	
29	38	8	16	13	23	27	56	2	3	4.66	5.40	6.90	6.66	5.90	20	10	3	0	0.25	Temp. for last 18
12	25	0	0	73	122	16	25	0	0	5.43	5.76	6.63	7.43	6.31	19	11	2	0	....	[days.
0	0	3	8	6	7	21	33	9	23	5.33	6.63	7.00	7.96	6.73	22	8	3	0	0.91	
7	14	3	9	50	170	22	91	4	13	5.70	6.20	6.96	7.53	6.60	20	10	4	0	1.34	
16	21	2	4	3	5	4	7	2	3	7.93	8.10	9.20	9.47	8.67	25	5	4	0	....	
10	17	15	18	0	0	0	0	13	27	6.83	6.76	6.93	7.36	6.97	22	8	8	0	1.86	
46	80	3	10	29	80	1	3	15	30	1.10	1.46	2.40	3.50	2.12	6	24	20	0	3.02	

MONTH OF DECEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	20.58	23.06	24.00	22.01	22.41	42	— 6	19.6	28.4	11	32	6	21	4	13
Fort Preble	16.51	19.41	25.67	20.64	20.56	44	— 2	23.4	22.6	46	173	4	13	1	2
Fort Constitution	16.93	20.96	25.03	19.58	20.62	44	— 4	23.4	24.6	18	47	4	15	4	14
Fort Independence	21.12	22.38	29.00	23.00	23.87	47	3	23.1	20.9	0	0	28	85	0	0
Fort Adams	25.09	26.58	31.69	30.16	28.38	51	5	22.6	23.4	50	187	12	55	8	19
Fort Trumbull	24.26	27.00	31.22	28.29	27.69	50	1	23.3	26.7	5	22	15	52	4	9
Fort Hamilton	27.50	29.00	36.10	31.40	31.00	50	9	19.0	22.0	16	43	7	14	2	4
Fort Columbus	22.41	27.67	32.00	27.48	27.39	46	4	18.6	23.4	5	9	10	24	15	17
West Point	21.36	24.06	28.80	25.71	25.00	47	—11	22.0	38.0	17	51	2	8	0	0
Watervliet Arsenal	16.84	22.90	28.00	20.31	22.01	50	—16	28.0	38.0	22	68	0	0	0	0
Plattsburg Barracks	16.87	17.83	21.70	19.87	19.07	41	—13	21.9	32.1	25	35	0	0	0	0
Madison Barracks	19.16	22.45	26.09	22.45	22.49	47	—16	24.5	38.5	7	20	12	22	13	20
Fort Ontario	21.61	23.12	26.12	22.64	23.37	48	— 6	24.6	29.4	0	0	30	60	0	0
Fort Niagara	23.74	25.45	27.48	24.80	25.37	48	— 2	22.6	27.4	4	5	14	54	1	4
Alleghany Arsenal	23.35	25.70	32.35	26.77	27.02	60	— 3	33.0	30.0	12	12	22	28	1	3
Fort Mifflin	32.16	33.13	38.20	36.10	34.90	56	20	21.1	14.9	3	6	13	38	0	0
Fort McHenry	27.83	32.06	36.87	33.93	32.67	47	7	14.3	25.7	29	62	8	14	1	1
Fort Washington	25.06	29.77	38.35	31.51	31.17	58	5	26.8	26.2	10	41	4	10	1	2
Fort Monroe	34.35	36.53	43.55	39.16	40.90	62	15	21.1	26.9	1	2	14	32	7	11
Fort Moultrie	43.77	48.48	54.29	47.35	48.47	67	21	18.5	27.5	14	40	19	60	8	21
Fort Marion	51.93	59.58	63.43	54.87	57.45	77	28	19.5	29.4	11	38	12	45	16	32
Fort Pierce	55.64	63.19	68.38	60.12	61.83	82	29	20.2	32.8	33	72	7	13	13	41
Key West Barracks	66.42	70.03	73.93	69.45	69.96	82	53	12.0	17.0	48	210	30	114	24	91
Fort Myers	59.48	63.48	70.45	64.96	64.50	81	42	16.4	22.6	26	58	30	52	17	25
Fort Brooke	51.48	58.06	65.06	60.64	58.81	76	33	17.2	25.8	32	59	18	31	25	37
Fort Meade	49.79	56.54	67.64	56.74	57.68	80	30	22.3	27.7	11	23	7	14	10	19
Barrancas Barracks	46.61	52.25	59.25	51.51	52.40	74	18	21.6	34.4	26	35	14	26	4	7
Mount Vernon Arsenal	44.35	47.09	58.22	49.64	49.82	74	18	21.2	31.8	18	49	16	47	5	11
New Orleans Barracks	49.71	54.14	62.90	54.09	55.21	81	26	25.8	29.2	28	65	17	38	27	88
Baton Rouge Barracks	44.96	51.45	60.41	50.06	51.72	79	21	27.3	30.7	34	74	22	39	27	49
Fort Washita	36.83	40.38	49.83	41.93	42.24	70	8	27.8	34.2	21	34	12	16	24	27
Fort Gibson	30.67	35.54	45.58	35.45	36.81	72	9	35.2	27.8	..	..	..	..	..	..
Fort Scott	27.03	29.35	35.93	32.90	31.30	58	1	26.7	30.3	22	55	15	29	9	21
Jefferson Barracks	27.93	31.12	31.74	28.32	29.78	64	0	34.2	29.8	25	48	15	27	11	16
St. Louis Arsenal	24.55	29.37	34.42	28.52	29.21	62	— 1	32.8	30.2	22	49	1	2	12	18
Newport Barracks	27.00	30.16	35.48	32.48	31.28	60	— 4	28.7	35.3	47	129	1	2	5	11
Fort Gratiot	21.25	23.80	29.41	24.06	24.63	46	—10	21.4	34.6	9	26	6	19	2	4
Fort Mackinac	10.65	16.71	22.94	15.97	16.57	38	—10	21.4	26.6	43	105	4	10	17	55
Fort Brady	11.32	17.51	25.22	15.13	17.29	46	—13	28.7	30.3	6	29	7	37	28	73
Fort Howard	14.23	16.42	22.52	17.58	17.69	48	—11	30.3	28.7	9	20	7	16	1	2
Fort Ripley	3.12	5.03	14.87	6.61	7.41	38	—24	30.6	31.4	7	25	13	38	1	1
Fort Snelling	7.96	11.22	13.41	12.03	11.16	46	—23	34.8	34.2	14	30	23	41	6	11
Fort Dodge	17.06	21.73	25.61	21.06	21.36	58	—12	36.6	33.4	9	19	3	6	4	24
Fort Leavenworth	22.70	25.32	30.58	26.41	26.28	46	— 6	19.7	32.3	41	73	10	13	0	0
Fort Kearney	15.06	19.12	27.91	16.67	19.69	49	— 7	29.3	26.7	43	93	9	16	3	4
Fort Laramie	19.35	23.18	33.61	22.83	24.74	51	—14	26.3	38.7	29	97	34	94	1	2
Fort Atkinson	24.35	27.87	35.25	29.12	29.15	60	— 4	30.9	33.1	25	54	20	83	15	38

MONTH OF DECEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	6	4	15	22	59	37	126	38	139	3.93	2.29	4.58	3.29	4.02	11	20	3	5	2.60	
2	6	18	44	28	82	14	32	11	26	6.19	6.38	6.41	4.58	5.89	14	17	3	6	2.89	
0	0	4	15	6	12	49	108	39	126	4.03	4.70	4.45	5.22	4.59	15	16	3	6	3.18	
20	47	0	0	21	92	0	0	27	116	3.80	6.38	5.16	6.00	5.34	16	15	2	6	1.28	
2	4	7	11	12	45	15	53	18	69	4.55	4.45	3.68	5.13	4.42	14	17	7	3	3.32	
4	12	0	0	32	56	9	26	55	206	4.06	5.01	5.00	5.06	4.78	15	16	5	6	6.07	
4	9	6	14	12	42	31	116	46	186	5.70	5.00	5.20	5.60	5.37	18	13	6	4	2.66	
10	16	14	23	8	17	26	97	36	126	5.61	6.16	6.00	5.77	5.88	19	12	5	4	2.72	
11	16	21	37	18	35	10	20	45	134	4.22	3.97	3.64	4.42	4.06	13	18	5	8	2.45	
2	6	17	54	7	22	22	86	50	176	7.61	7.51	7.29	6.77	7.29	15	16	3	5	2.86	
2	4	30	60	27	38	20	24	20	44	2.77	2.64	2.32	3.58	2.57	10	21	2	4	1.84	
7	22	23	57	30	112	23	85	9	23	1.64	2.06	2.12	2.32	2.04	8	23	3	10	4.25	
38	60	0	0	31	84	0	0	25	102	5.45	5.90	5.32	3.80	5.12	12	19	4	7	4.41	
27	79	10	31	18	70	10	45	40	186	1.80	1.90	2.06	2.93	2.17	11	20	6	10	1.42	
7	8	8	16	47	180	13	38	10	25	....	....	....	....	....	8	23	5	8	1.71	
2	5	6	16	55	150	16	44	29	105	3.26	4.30	4.31	4.27	4.03	13	18	6	7	1.90	Therm. protected?
4	5	4	4	6	11	28	61	26	80	4.29	4.25	3.54	4.54	4.16	10	21	3	4	1.50	
10	24	9	27	17	54	7	18	61	207	3.54	4.35	3.22	5.18	4.07	11	20	4	4	1.78	
9	16	3	4	42	103	3	4	45	104	3.93	4.19	5.38	5.09	4.65	13	17	4	4	0.91	
3	5	10	23	14	46	29	78	25	77	4.15	4.16	4.96	6.54	4.96	15	16	7	1	1.10	
3	9	0	0	9	20	23	47	37	83	5.09	5.12	5.30	6.03	5.38	18	13	8	0	1.60	
8	23	9	18	5	10	26	40	20	32	4.06	4.12	4.71	5.48	4.59	16	15	9	0	....	
2	4	5	12	4	12	3	4	3	9	4.68	5.45	5.35	6.39	5.47	17	14	6	0	2.64	
15	30	14	26	5	10	4	10	4	7	2.93	6.48	6.67	7.09	5.79	18	13	6	0	1.50	
5	10	3	8	5	8	15	25	12	19	6.54	6.29	6.32	8.93	7.01	22	9	5	0	3.00	
3	4	2	2	4	6	7	15	5	10	5.29	5.87	5.87	6.50	5.88	20	11	6	0	2.37	
11	26	4	15	6	10	1	1	50	89	4.58	5.38	5.12	4.64	4.93	18	13	8	1	2.54	
20	48	3	10	26	57	3	11	29	83	4.32	4.16	3.90	5.03	4.35	13	18	9	1	2.91	
28	60	5	15	0	0	0	0	19	42	4.16	4.12	3.22	4.03	3.88	11	20	5	0	2.69	
11	21	15	33	4	9	6	9	5	9	3.83	4.12	3.84	4.61	4.10	12	19	10	0	5.36	
4	7	17	33	6	8	26	29	14	20	3.09	4.77	6.16	6.38	5.10	15	16	4	1	2.80	
..	..	..	..	..	..	..	..	..	..	1.00	2.48	4.22	1.03	2.18	12	19	4	2	7.70?	
7	12	19	73	20	55	7	15	23	57	3.32	3.54	4.22	3.93	3.50	12	19	6	3	1.84	
21	51	14	22	4	11	6	11	28	68	3.41	4.16	4.64	5.12	4.33	15	16	2	3	1.25	
18	21	14	22	6	11	26	51	18	62	7.68	7.64	7.00	1.93	6.06	14	17	4	2	2.96	
9	18	8	15	8	22	31	89	15	38	3.80	4.06	4.45	4.36	4.17	12	19	4	4	10.85?	
11	20	17	32	43	104	22	49	14	40	2.03	2.58	3.06	3.48	2.79	7	24	4	9	2.06	
1	3	10	24	1	2	35	108	13	43	5.41	7.45	8.61	2.00	5.87	10	21	3	13	0.35?	Weather inaccurate
12	38	28	80	30	118	11	37	2	6	1.19	2.12	2.32	1.41	1.76	8	23	6	13	7.55?	Inaccurate.
0	0	19	46	20	44	34	51	10	10	3.25	3.41	4.03	4.83	3.88	11	20	1	6	0.28	
7	14	41	96	14	34	27	82	10	44	5.16	5.38	4.41	5.29	5.06	14	17	1	10	0.36	
13	21	7	15	22	46	13	33	26	64	7.41	7.03	7.73	7.90	7.52	16	15	1	6	0.05	
12	36	1	1	12	67	19	38	43	170	3.93	4.19	4.09	5.00	4.30	13	18	4	7	0.71	
1	1	29	56	19	32	0	0	14	20	3.22	3.16	3.61	4.00	3.50	9	22	2	9	1.96	
15	23	12	43	0	0	8	12	4	12	3.90	3.35	3.83	5.16	5.06	12	19	1	6	0.76	
0	0	0	0	1	5	0	0	38	144	3.81	4.06	4.10	7.32	4.82	14	17	0	7	0.88*	*One-tenth the depth
19	43	27	74	6	9	6	14	15	28	5.67	5.54	5.00	5.41	5.40	17	14	1	8	....	[of snow.

MONTH OF DECEMBER, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Arbuckle	34.96	37.77	46.41	38.74	39.47	71	7	31.5	32.5	26	44	20	26	6	7
Fort Worth	37.09	45.64	50.38	43.38	44.12	70	13	25.9	31.1	35	40	2	4	0	0
Fort Belknap	34.38	44.25	51.35	37.74	41.93	72	8	30.1	33.9	43	104	2	4	4	14
Phantom Hill	37.16	46.32	55.77	45.10	46.09	74	10	27.9	36.1	18	24	4	8	9	16
Fort Graham	42.32	46.54	56.29	47.90	48.26	76	19	27.7	29.3	26	68	19	35	0	0
Fort Gates	41.29	47.80	56.58	44.96	47.66	76	15	28.3	32.7	26	71	28	61	8	12
Fort Croghan	39.29	45.39	57.55	46.29	47.13	76	18	28.9	29.1	12	35	7	26	1	4
Austin	42.48	49.77	50.98	47.45	47.42	77	17	29.6	30.4	25	100	8	27	14	50
Fort Martin Scott	40.12	46.35	52.45	49.12	47.01	70	22	22.0	25.0	15	25	10	22	4	6
San Antonio	49.12	51.48	60.80	44.64	51.51	78	30	26.5	21.5	8	15	45	60	10	11
Fort Merrill	50.96	55.40	64.26	57.40	59.50	85	23	25.5	36.5	34	79	5	8	4	5
Corpus Christi	51.70	55.90	61.70	56.70	56.50	78	26	21.5	30.5	14	55	19	72	3	7
Fort Brown	54.38	61.40	60.32	55.64	57.94	75	28	17.1	29.9	28	61	9	21	36	79
Ringgold Barracks	53.77	58.77	66.41	58.51	59.36	82	27	32.6	32.4	14	34	10	23	13	30
Fort McIntosh	49.90	58.39	66.26	56.00	55.14	88	23	32.9	32.1	15	21	31	43	12	13
Fort Duncan	47.30	53.41	60.91	52.66	53.57	73	20	19.4	33.6	25	62	15	29	15	35
Fort Inge	45.93	52.83	63.45	49.96	53.04	84	19	31.0	34.0	3	11	21	45	21	33
Fort Lincoln	47.48	51.61	63.00	53.64	53.93	84	28	30.1	25.9	2	8	41	64	5	10
Fort Fillmore	29.41	47.06	60.64	39.45	44.14	72	18	27.9	26.1	16	23	11	14	22	45
Fort Conrad	26.61	37.16	49.61	33.20	36.65	61	11	24.4	25.6	34	88	7	14	6	8
Cebolletta	37.45	39.55	42.94	40.48	40.10	55	35	14.9	5.1	5	18	1	3	13	55
Fort Union	21.67	33.54	40.35	31.29	31.71	47	15	15.3	16.7	16	38	8	17	10	22
Fort Defiance	18.80	28.06	40.48	23.54	27.72	62	4	34.3	23.7	19	31	8	14	8	13
San Diego	46.09	53.64	60.87	50.06	52.67	70	36	17.3	16.7	2	2	17	19	24	29
Rancho del Chino	43.90	56.93	61.58	52.03	53.61	72	36	18.4	17.6	0	0	0	0	0	0
Monterey	50.83	53.44	57.04	51.33	53.16	65	42	11.8	11.2	3	3	0	0	1	1
Benicia Barracks	44.67	48.25	54.77	48.32	49.03	60	37	11.0	12.0	1	2	4	11	39	94
Fort Miller	41.35	46.74	58.45	45.48	48.00	64	32	16.0	16.0	5	6	2	7	42	61
Camp Far West	40.83	45.29	54.83	45.51	46.61	59	29	12.4	17.6	0	0	0	0	0	0
Columbia Barracks	33.26	34.43	43.33	36.53	36.89	54	22	17.1	24.9	15	26	9	18	19	65
Fort Steilacoom	37.67	41.55	44.09	41.29	41.15	52	22	10.9	19.1	6	9	29	54	14	25

MONTH OF DECEMBER, 1851.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
3	6	17	50	11	31	12	21	3	4	5.67	6.25	7.57	7.89	6.84	20	11	4	1	2.35	
2	3	37	58	0	0	2	4	12	24	7.09	7.06	7.67	8.00	7.45	24	7	5	0	0.79	
8	20	32	124	5	15	4	7	5	14	4.87	4.41	5.61	5.87	5.19	17	14	5	0	....	
8	11	20	40	27	55	23	30	8	9	5.06	5.77	6.20	7.00	6.00	20	11	3	0	....	
18	34	4	11	29	58	1	3	27	62	1.35	4.32	5.25	5.16	4.02	16	15	7	0	4.40	
28	78	15	33	0	0	4	8	5	8	3.16	3.90	5.61	6.58	4.81	14	17	11	0	2.84	
18	79	4	14	30	62	6	25	42	129	2.61	4.13	6.42	5.87	4.76	19	12	7	0	7.40 ?	
18	47	1	3	11	35	25	38	18	45	2.32	2.54	3.90	4.09	3.21	11	20	11	0	2.63	
9	25	20	52	10	18	18	33	17	27	3.93	3.74	5.67	5.51	4.71	12	19	5	0	1.00	
24	28	25	27	2	4	3	4	7	8	6.45	7.96	7.25	7.96	7.40	14	17	9	0	2.30	Clearness inaccurate.
18	54	19	52	7	17	9	16	11	19	3.00	3.60	4.26	5.30	4.04	13	18	6	0	0.56	
28	37	9	44	9	15	1	4	33	102	2.32	2.38	3.61	4.80	3.28	9	22	13	0	1.19	
11	22	5	10	11	22	10	18	14	34	2.29	2.38	2.64	2.32	2.41	6	25	6	0	4.70	
22	59	14	40	4	8	2	2	29	81	3.06	3.96	5.29	5.45	4.44	15	16	7	0	1.15	
35	62	3	3	5	5	5	6	18	27	2.52	3.03	4.81	4.29	3.64	9	22	7	0	0.65	
18	48	29	79	9	17	2	6	11	32	4.54	5.74	7.12	7.29	6.17	20	11	3	0	0.68	
8	21	2	6	3	5	2	6	3	12	0.93	2.22	3.48	4.19	2.71	12	19	9	0	0.29	
39	64	2	5	14	19	1	1	20	34	3.45	3.58	5.38	3.45	3.96	11	20	6	0	0.98	
13	16	5	9	7	10	27	41	9	13	6.03	7.03	6.35	7.25	6.67	25	6	12	0	1.74	
3	3	21	63	10	21	17	38	18	31	5.16	6.01	5.61	6.71	5.87	22	9	7	1	0.39	
5	25	23	66	11	35	42	172	22	88	4.74	6.48	6.42	5.42	5.76	24	7	2	5	1.15	Temp. inaccurate.
3	3	11	32	9	18	6	14	22	57	5.74	8.09	9.22	4.74	6.95	..	..	0	3	0.33	Clearness inaccurate.
0	0	1	2	10	23	58	99	15	44	4.45	3.74	3.90	2.45	3.64	14	17	1	10	*2.00 ?	*18 inches snow.
16	19	21	40	16	20	20	38	4	8	5.51	5.61	5.22	5.35	5.42	18	13	12	0	3.74	
25	61	0	0	87	167	9	14	0	0	5.48	5.54	5.03	5.30	5.34	21	10	..	..	....	
7	26	8	28	18	34	15	19	2	3	3.66	5.33	5.00	5.00	4.75	9	9	13	0	4.50	18 days; 9th to 21st
8	23	21	84	30	103	2	5	1	2	4.32	3.77	4.41	5.12	4.40	13	18	15	0	4.92	[not observed. Rain
20	35	3	8	10	18	13	15	3	5	7.23	7.42	7.80	7.30	7.46	24	7	13	0	10.41	[in full.
26	70	23	35	4	6	0	0	5	8	4.83	4.96	5.80	5.87	5.36	15	16	14	0	6.63	
43	122	10	22	4	5	5	7	9	16	4.00	4.56	4.77	4.68	4.50	10	21	16	4	7.93	
50	105	2	4	13	42	0	0	10	18	1.03	1.12	0.70	2.12	1.24	2	29	16	2	3.93	

Note to the Temperature Summaries for 1851.

For the temperature summaries of 1850 and 1851 the latitudes, longitudes, and altitudes of the posts have been revised and corrected from the best authorities. The very recent extensive surveys of the interior and of the coast, furnish geographical positions very near to accuracy for each of the new posts of the interior and western coast, and corrections for several eastern stations. Many of these determinations are first available as this work is passing through the press.

The altitude, in some cases, varies in successive years from a change of the precise position at which the observations are taken.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Sullivan........	44 54	66 58	30	21.52	26.48	31.68	41.77	48.18	54.31	59.68	61.55	57.68
Fort Preble..........	43 39	70 13	50	20.01	25.28	33.30	42.60	51.61	58.71	66.59	65.19	60.00
Fort Constitution	43 04	70 42	40	22.82	27.33	34.98	42.09	52.27	60.91	67.70	65.49	58.65
Fort Independence...	42 21	71 00	50	......	......	......	......	56.32	64.32	71.11	69.02	61.72
Fort Adams.........	41 30	71 19	40	33.03	34.55	38.56	46.33	55.81	64.50	71.71	69.13	63.40
Fort Trumbull.......	41 21	72 06	23	32.22	33.15	39.28	47.30	56.25	65.40	72.08	68.91	63.67
Fort Hamilton.......	40 37	74 02	25	34.90	36.40	40.72	48.95	58.62	67.50	73.56	70.67	65.35
Fort Columbus.......	40 42	74 01	23	32.15	33.68	39.71	49.13	58.24	68.45	75.64	74.00	67.86
West Point..........	41 23	74 00	167	29.45	32.26	38.64	46.85	57.13	65.51	71.62	68.65	63.74
Watervliet Arsenal ..	42 43	73 43	50	22.03	27.84	37.35	45.66	57.94	66.67	72.14	68.60	61.83
Plattsburg Barracks ..	44 41	73 25	186	18.62	24.20	30.28	42.08	52.91	61.65	66.96	66.37	59.39
Madison Barracks....	43 57	76 15	262	22.31	27.80	34.34	41.93	54.12	62.01	68.52	65.45	59.18
Fort Ontario	43 20	76 40	250	25.69	29.74	34.71	42.12	52.06	61.67	68.82	66.69	63.07
Fort Niagara	43 18	79 08	250	28.69	30.36	35.52	41.79	53.59	63.58	68.67	66.93	61.58
Alleghany Arsenal...	40 32	80 12	704	32.47	37.67	42.48	48.75	61.32	66.41	72.19	69.15	64.48
Carlisle Barracks	40 12	77 14	......	31.38	36.85	41.47	47.61	60.72	67.33	71.90	69.30	63.83
Fort Mifflin	39 53	75 13	20	33.17	37.00	41.84	50.66	61.77	69.49	76.25	73.49	69.40
Fort McHenry.......	39 17	76 35	36	37.30	39.54	47.05	54.73	64.84	71.39	78.33	73.64	69.37
Fort Washington....	38 43	77 03	60	......	......	......	......	66.04	72.20	78.48	74.61	68.08
Fort Monroe.........	37 00	76 18	8	42.44	46.36	49.32	54.38	65.49	72.54	79.00	75.04	69.66
Fort Moultrie........	32 45	79 51	25	51.09	56.82	60.87	66.00	73.45	78.95	82.84	82.17	74.32
Fort Marion.........	29 48	81 35	25	......	63.70	64.32	69.32	74.86	79.14	80.55	80.54	77.48
Fort Pierce..........	27 30	80 20	30	......	......	......	......	......	......	......	......	......
Key West Barracks..	24 32	81 48	10	73.85	74.52	74.02	77.18	79.57	81.79	83.48	83.64	81.31
Fort Myers..........	26 38	82 00	50	65.45	69.02	69.89	73.88	78.68	79.59	81.71	83.41	80.40
Fort Brooke.........	28 00	82 28	20	......	......	......	72.27	76.46	78.66	80.16	80.22	76.33
Fort Meade	28 01	82 00	80	......	......	......	......	76.35	79.32	80.24	81.57	76.49
Fort Barrancas	30 18	87 27	20	54.00	58.98	60.94	67.96	74.66	80.73	83.04	79.22	76.68
Mt. Vernon Arsenal..	31 12	88 20	200	51.26	57.04	59.12	67.52	74.89	79.83	81.82	84.05	75.53
East Pascagoula	30 23	88 28	10	......	......	......	......	75.80	83.05	85.17	80.19	80.46
New Orleans Bar'ks..	29 57	90 00	10	54.43	59.79	61.64	68.24	......	......	......	......	......
Baton Rouge Bar'ks..	30 26	91 18	41	52.94	57.16	61.17	67.32	75.21	78.80	81.43	80.19	75.14
Fort Towson........	34 00	95 33	300?	44.31	44.88	56.25	60.38	71.91	78.30	82.23	82.54	78.75
Fort Washita........	34 14	96 38	645	43.93	44.18	56.88	60.84	72.39	79.56	82.41	84.71	80.25
Fort Gibson.........	37 47	95 10	842	41.91	42.27	54.09	58.23	72.26	77.16	82.50	84.80	78.32
Fort Scott...........	37 45	94 35	1000?	33.71	36.32	48.14	53.46	69.50	73.40	78.23	76.63	73.59
Jefferson Barracks ...	38 28	90 15	472	35.48	38.29	48.13	50.83	68.27	73.62	79.53	76.05	73.53
St. Louis Arsenal.....	38 40	90 05	450	32.56	36.31	46.32	50.61	66.49	72.41	78.35	77.09	71.71
Newport Barracks....	39 05	84 22	500	36.42	42.87	48.55	53.32	67.13	72.46	76.30	75.16	69.77
Detroit Barracks.....	42 20	82 58	580	28.47	32.66	39.36	44.69	56.32	......	......	......	......
Fort Gratiot.........	42 55	82 23	598	25.67	29.55	35.09	40.83	53.16	62.00	67.56	64.34	62.46
Fort Mackinac.......	45 51	84 33	728	19.47	25.36	30.21	36.26	44.79	57.61	66.15	63.37	58.85
Fort Brady..........	46 30	84 43	600	17.69	21.96	28.64	38.20	44.47	53.46	62.46	61.28	56.32
Fort Howard	44 30	88 05	620	20.15	24.89	33.47	39.96	50.19	62.26	67.32	64.56	61.16
Fort Ripley..........	46 19	94 19	1130	9.25	14.46	31.32	39.82	48.44	60.04	......	61.61	60.03
Fort Snelling........	44 53	93 10	820	14.95	22.10	39.37	50.14	57.99	67.80	76.34	68.41	69.08
Fort Dodge	42 28	94 03	944	......	......	......	......	......	......	......	71.29	68.71
Fort Leavenworth....	39 21	94 44	896	32.00	35.16	47.11	50.20	65.25	70.62	75.77	73.37	71.60

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1851.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
51.88	35.21	22.41	40.54	58.51	48.25	23.47	42.69	85	—10	42.3	52.7	Maine.
51.56	35.09	20.56	42.50	63.49	48.88	21.95	44.21	85	—12	40.8	56.2	Maine.
51.33	34.22	20.62	43.11	64.70	48.06	23.59	44.87	90	—12	45.1	56.9	New Hampshire. [Mass.
53.64	36.92	23.87	......	68.15	50.76	......	......	88	0	....	....	Governor's Island, Bost. har.,
56.79	41.10	28.38	46.90	68.44	53.76	31.99	50.27	86	3	35.7	47.3	Rhode Island.
55.07	39.88	27.69	47.61	68.79	52.87	31.02	50.07	85	1	34.9	49.1	Connecticut.
58.32	43.67	31.00	49.43	70.57	55.75	34.10	52.46	86	9	33.5	43.5	New York harbor.
57.32	42.24	27.39	49.02	72.69	55.80	31.07	52.15	96	4	43.8	48.2	New York harbor.
53.89	38.48	25.00	47.54	68.59	52.03	28.90	49.27	90	—11	40.7	60.3	New York.
52.16	36.00	22.01	46.98	69.13	50.00	23.96	47.52	94	—16	46.5	63.5	New York.
51.57	30.49	19.07	41.75	64.99	47.15	20.63	43.63	88	—18	44.4	61.6	New York.
50.60	32.26	22.49	43.46	65.32	47.35	24.53	45.17	88	—17	42.8	62.2	New York.
50.89	34.54	23.37	42.96	65.72	49.50	26.27	46.11	95	— 6	48.9	52.1	New York.
51.30	35.85	25.37	42.63	66.40	49.57	28.14	46.69	86	1	39.3	45.7	New York.
51.66	36.55	27.02	50.85	69.25	50.89	32.38	50.84	92	— 3	41.2	53.8	Pennsylvania.
52.13	36.95	......	49.93	69.81	50.97	......	......	98	4	....	....	Pennsylvania.
61.05	53.27	34.90	51.42	73.07	61.24	35.00	55.18	97	8	41.8	47.2	Pennsylvania.
58.86	46.63	32.67	55.54	74.45	58.28	36.50	56.19	92	7	35.8	49.2	Maryland.
58.02	43.09	31.17	......	75.09	56.40	......	......	101	5	....	....	Potomac river, Maryland.
61.36	48.46	40.90	56.39	75.52	59.82	43.23	58.74	92	14	33.3	44.7	Virginia.
67.61	56.68	48.47	66.77	81.32	66.20	52.13	66.61	99	20	32.4	46.6	South Carolina.
73.35	65.18	57.45	69.50	80.07	72.00	......	......	95	28	....	....	St. Augustine, Florida.
......	71.53	61.83	......	......	......	......	......	....	29	....	....	Indian river, E. coast of Fla.
79.80	75.46	69.96	76.92	82.97	78.85	72.77	77.88	91	53	13.1	24.9	Florida. [of Fla.
78.29	72.74	64.59	74.15	81.57	77.14	66.35	74.80	95	40	20.2	34.8	N'r Charlotte harbor, W. coast
73.87	66.61	58.81	......	79.68	72.27	......	......	91	33	....	....	Tampa Bay, Florida.
72.57	65.89	57.68	......	80.13	71.64	......	......	96	30	....	....	Interior of Peninsula, Florida.
......	58.83	52.40	67.85	81.71	......	55.12	......	95	18	....	....	Pensacola Bay, Florida.
66.83	54.79	49.82	67.17	80.29	65.71	52.71	66.47	98	18	31.5	48.5	Alabama.
......	......	......	......	84.09	......	......	......	96	....	....	....	Mississippi.
69.67	60.89	55.21	......	......	......	56.48	......	....	26	....	....	Louisiana.
65.43	55.06	51.72	67.90	80.14	65.21	53.94	66.80	99	21	32.2	45.8	Louisiana.
63.25	47.60	......	62.51	81.02	63.20	......	......	100	18	....	....	Indian Territory.
61.72	46.70	42.24	63.37	82.23	62.89	43.45	62.98	105	8	32.0	55.0	Indian Territory.
60.76	44.34	36.81	61.53	81.49	61.14	40.33	61.12	105	9	43.9	52.1	Indian Territory.
58.11	39.02	31.30	57.03	76.09	56.90	33.78	55.95	96	1	40.1	54.9	Kansas.
57.52	41.09	29.78	55.74	76.40	57.38	34.52	56.01	94	0	38.0	56.0	Missouri.
55.13	39.39	29.21	54.47	75.95	55.41	32.69	54.63	101	— 1	46.4	55.6	Missouri.
55.48	43.07	31.28	56.33	74.64	56.11	36.86	55.98	94	— 4	38.0	60.0	Kentucky.
......	......	......	46.79	......	......	......	......	....	— 2	....	....	Michigan.
50.76	35.14	24.63	43.02	64.63	49.45	26.62	45.93	92	—11	46.1	56.9	Michigan.
49.55	27.71	16.57	37.08	62.38	45.37	20.47	41.33	83	—27	41.7	68.3	Michigan.
44.73	26.64	17.29	37.10	59.07	42.57	18.98	39.43	86	—30	46.6	69.4	Michigan.
46.11	31.10	17.69	41.20	64.71	46.12	20.91	43.23	89	—19	45.8	62.2	Green Bay, Wisconsin.
43.36	24.33	7.41	39.86	......	42.57	10.37	......	85	—39	....	....	Upper Mississippi river, Min.
52.05	30.27	11.16	49.17	70.85	50.46	16.07	46.64	94	—28	47.4	74.6	Minnesota.
48.30	32.42	21.36	......	......	49.81	......	......	94	—12	....	....	Des Moines river, Iowa.
54.49	35.25	26.28	54.19	73.25	53.78	31.15	53.09	91	— 6	37.9	59.1	Kansas.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Kearney........	40 38	98 57	2360	27.00	28.11	......	45.58	60.63	67.00	76.17	70.82	69.58
Fort Laramie........	42 12	104 47	4519	35.57	31.21	41.00	47.45	55.15	67.21	77.38	72.69	69.32
Fort Atkinson	37 47	100 14	2330	34.61	34.75	47.83	51.48	66.54	74.21	81.09	82.96	74.07
Fort Arbuckle	34 36	97 40	1000?	39.28	43.11	54.62	56.96	69.11	78.03	81.83	84.55	77.13
Fort Worth.........	32 40	97 25	1100?	45.78	46.71	56.64	61.10	72.70	79.29	82.23	84.55	78.66
Fort Belknap........	33 08	98 48	1600?	......	......	......	......	......	......	83.31	84.70	79.93
Phantom Hill........	32 30	99 45	2300?	......	......	......	......	......	......	......	......	......
Fort Graham........	31 56	97 26	900?	48.27	49.92	58.38	62.69	74.92	81.45	84.90	87.20	80.15
Fort Gates..........	31 26	97 49	1200?	47.84	47.45	58.39	62.75	74.49	81.59	85.04	87.68	80.10
Fort Croghan........	30 40	98 31	1100?	51.20	52.34	60.01	63.72	75.52	81.70	83.42	86.65	78.38
Austin..............	30 18	97 45	500?	......	......	......	64.31	76.21	80.02	81.49	84.62	78.78
Fort Martin Scott....	30 10	99 05	1300?	42.95	47.76	54.10	62.08	71.09	77.51	78.84	80.76	74.74
San Antonio	29 25	98 25	600	54.51	53.66	60.83	66.06	74.76	78.88	79.16	83.96	77.85
Fort Merrill.........	28 17	98 00	150?	......	......	......	69.57	77.34	82.30	81.82	84.95	78.70
Corpus Christi.......	27 47	97 27	20	......	......	*69.98	71.23	79.86	82.62	82.96	84.74	80.38
Fort Brown	25 54	97 26	50	60.54	65.21	66.69	75.18	81.60	83.11	82.41	85.83	79.83
Ringgold Barracks...	26 23	99 02	200?	59.68	63.04	72.50	77.55	83.80	86.39	84.33	87.07	80.58
Fort McIntosh	27 31	99 27	400?	57.67	61.17	67.92	74.81	82.92	86.02	86.41	90.32	82.46
Fort Duncan........	28 42	100 28	800?	55.58	57.88	65.01	74.15	81.33	85.39	86.07	88.25	83.76
Fort Inge...........	29 09	99 49	1000?	......	57.11	62.18	67.25	78.90	81.38	81.70	83.13	78.40
Fort Lincoln	29 22	99 33	900?	......	......	......	......	......	......	81.98	84.43	79.61
El Paso.............	31 44	106 28	3830	45.75	49.25	60.36	74.31	77.92	87.36	88.53	86.98	......
Fort Fillmore	32 13	106 31	3937	......	......	......	......	......	......	......	......	79.60
Doña Ana	32 23	106 51	4000?	......	......	......	......	69.89	78.94	82.22	81.50	......
Fort Conrad.........	33 50	106 58	4250?	......	......	......	......	......	......	......	......	......
Socorro	34 10	106 50	4560	35.45	35.98	......	59.37	68.01	79.32	79.96	78.46	......
Albuquerque	35 06	106 38	5032	30.70	36.07	47.26	53.01	61.80	70.19	75.72	......	......
Cebolletta...........	35 15	107 20	6200?	31.00	31.77	43.76	52.90	64.25	76.19	78.56	74.41	66.60
Las Vegas	35 35	105 16	6418	28.57	28.10	33.19	47.93	61.06	71.46	74.90	......	......
Fort Union..........	35 54	104 57	6670	......	......	......	......	......	......	......	64.49	57.70
Rayado	36 27	104 55	6000?	......	......	......	......	61.62	71.48	......	......	......
Santa Fé............	35 41	106 02	6846	34.01	34.15	......	49.40	59.02	69.43	72.90	......	......
Abiquiu.............	36 15	106 40	6500?	......	......	......	......	......	......	74.06	70.87	64.86
Fort Defiance	35 44	109 15	8000?	......	......	......	......	......	......	......	......	......
Fort Yuma..........	32 43	114 36	120	54.40	53.15	62.64	72.95	......	......	......	......	......
San Diego	32 42	117 14	150?	51.28	50.30	55.19	......	......	......	......	......	......
Rancho del Chino....	34 00	117 20	1000?	......	......	......	......	......	......	71.89	73.68	70.06
San Luis Rey	33 13	117 25	20	52.01	50.74	54.33	......	......	......	......	......	......
Monterey	36 36	121 52	140	......	......	......	......	......	......	57.06	62.84	59.14
Sonoma............	38 20	122 28	100?	50.96	52.84	53.04	57.47	......	......	......	......	......
Benicia	38 03	122 08	64	49.54	50.08	55.42	60.12	61.83	65.16	65.68	70.07	64.08
Fort Miller	37 00	119 40	402	......	......	......	......	......	......	......	82.71	75.41
Camp Far West......	39 07	120 18	100	45.34	48.03	52.62	60.84	62.13	71.66	75.53	76.29	69.34
Astoria.............	46 11	123 48	50?	43.00	43.62	45.73	52.76	55.00	59.53	61.55	63.76	58.15
Columbia Barracks...	45 40	122 30	50	42.01	42.90	45.29	......	......	......	......	......	......
Dalles of Columbia ..	45 40	120 45	200?	37.95	41.39	46.69	......	......	......	......	......	......
Fort Steilacoom	47 10	122 25	300?	40.60	40.79	43.17	51.49	54.38	61.26	62.93	66.82	57.01

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1851.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
50.45	30.38	19.69	......	71.33	50.14	24.93	......	101	— 7	....	....	Platte river, Nebraska.
51.56	33.24	24.74	47.86	72.43	51.37	30.50	50.54	102	—14	51.5	64.5	N. Fork of Platte riv., Nebras.
57.57	35.08	29.15	55.28	79.42	55.57	32.84	55.78	96	— 4	40.2	59.8	Arkansas river, Kansas.
62.80	45.56	39.47	60.23	81.47	61.83	40.62	61.04	101	7	40.0	54.0	Canadian river, Indian Ter.
66.23	48.80	44.12	63.48	82.02	64.56	45.53	63.90	103	13	39.1	50.9	Northern Texas.
66.20	46.64	41.93	......	......	64.26	......	......	106	8	....	....	Upper Brazos river, Texas.
......	......	46.09	......	......	......	......	......	....	10	....	....	Clear Fork of Brazos, Texas.
68.37	53.89	48.26	65.33	84.51	67.47	48.82	66.53	108.5	19	42.0	47.5	Texas.
66.00	50.82	47.66	65.21	84.77	65.64	47.65	65.82	100	15	34.2	50.8	Texas.
64.90	50.22	47.13	66.42	83.92	64.50	50.22	66.26	103	18	36.7	48.3	Texas.
70.31	59.00	47.42	......	82.04	69.36	......	......	98	17	....	....	Colorado river, Texas.
64.02	50.10	47.01	62.42	79.04	62.95	45.91	62.58	100	23	37.4	39.6	Texas.
71.00	56.28	51.51	67.22	80.67	68.38	53.32	67.37	94	25	26.6	42.4	Texas.
72.00	59.64	59.50	......	83.02	70.11	......	......	102	23	....	....	Neuces river, Texas.
73.12	60.21	56.50	73.69	83.44	71.23	......	......	93	26	....	....	Texas.
73.23	61.89	57.94	74.49	83.45	72.65	61.23	72.95	95	28	22.1	44.9	Rio Grande, Texas.
75.01	63.19	59.36	77.62	85.93	78.59	60.69	75.71	108	26	32.3	49.7	Rio Grande, Texas.
73.24	60.25	55.14	75.22	87.58	71.98	57.99	73.19	106	23	32.8	50.2	Rio Grande, Texas.
74.62	62.15	53.57	73.49	86.57	73.51	55.68	72.31	98	20	25.7	52.3	Rio Grande, Texas.
68.00	55.00	53.04	69.44	82.07	67.13	......	......	98	19	....	....	Leona riv., Southwestern Tex.
66.92	55.64	53.92	......	......	67.39	......	......	99	28	....	....	Rio Seco, Southwestern Tex.
......	......	......	70.86	87.62	......	......	......	108	22	....	....	Rio Grande, Southern N. Mex.
63.18	48.17	44.14	......	......	63.98	......	......	....	18	....	....	Bracito, val. R. G., n'r El Paso.
......	......	......	......	70.88	......	......	......	101	....	....	....	Rio Grande valley, N. Mex.
60.92	41.26	36.65	......	......	......	......	......	....	11	....	....	Valverde, Rio Grande, N. M.
......	......	......	......	79.24	......	......	......	104	10	....	....	Rio Grande, New Mexico.
......	......	......	54.02	......	......	......	......	90	7	....	....	Rio Grande, New Mexico.
57.43	46.38	40.10	53.64	76.38	54.83	34.29	54.78	96	2	41.2	52.8	Laguna, New Mexico.
......	......	......	47.39	......	......	......	......	101	—14	....	....	Eastern New Mexico.
46.62	35.91	31.71	......	......	46.74	......	......	93	....	....	....	Moro riv., Eastern New Mex.
......	......	......	......	......	......	......	......	93	....	....	....	Cimarron riv., Eastern N. M.
......	......	......	......	......	......	......	......	98	— 2	....	....	New Mexico.
53.28	......	......	......	......	......	......	......	85	....	....	....	Rio de Chama, New Mexico.
......	......	27.72	......	......	......	......	......	....	4	....	....	Cañoncito, N. Western N. M.
......	......	......	......	......	......	......	......	....	19	....	....	Colorado river, California.
......	56.38	52.67	......	......	......	......	......	....	32	....	....	Southern California.
68.58	60.39	53.61	......	......	66.34	......	......	104	36	....	....	Rio Santa Ana, California.
......	......	......	......	......	......	......	......	....	36	....	....	Coast of Southern California.
59.96	55.56	53.16	......	......	58.22	......	......	75	40	....	....	California.
......	......	......	......	......	......	......	......	....	31	....	....	San Pablo Bay, California.
65.86	56.93	49.03	59.12	66.97	62.29	49.55	59.48	94	32	34.5	27.5	California.
69.87	55.26	48.00	......	......	68.84	......	......	111	33	....	....	San Joaquin valley, California.
64.70	54.35	46.61	58.53	74.49	62.76	46.66	60.61	104	26	43.4	34.6	Marysville, California.
......	......	......	51.16	61.58	......	......	......	80	28	....	....	Oregon.
......	......	36.89	......	......	......	40.60	......	....	19	....	....	Oregon, (Fort Vancouver.)
......	......	......	......	......	......	......	......	....	19	....	....	Columbia river, Oregon.
52.90	46.27	41.15	49.68	63.67	52.06	40.78	51.55	92	22	40.5	29.5	Puget's Sound, Wash'n Ter.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1851.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Sullivan	2.81	4.10	4.60	3.30	2.80	1.40	3.35	0.90	3.30	4.50	3.00	2.60	10.70	5.65	10.80	8.91	36.06
Fort Preble	3.55	5.80	2.45	7.35	3.90	3.87	3.65	2.22	4.41	8.43	6.58	2.89	13.70	9.74	19.42	12.24	46.10
Fort Constitution	2.13	5.12	0.55	7.13	2.55	3.67	4.30	1.92	3.23	5.47	6.10	3.18	10.23	9.89	14.80	10.43	45.35
Fort Independence	....	....	....	....	....	....	1.60	1.44	1.24	3.95	4.40	1.28	....	....	9.50	....	....
Fort Adams	3.12	5.68	1.41	7.96	4.10	2.10	6.62	3.65	3.49	4.47	6.84	3.32	13.47	12.27	14.80	12.12	52.76
Fort Trumbull	4.60	7.85	4.11	12.60	8.26	5.75	11.79	9.65	5.31	9.52	11.03	6.07	24.97	27.19	25.86	18.52	96.54?
Fort Hamilton	2.39	4.44	3.88	5.32	2.88	1.68	3.29	2.64	1.31	2.99	4.39	2.66	12.08	7.61	8.69	9.49	37.87
Fort Columbus	1.46	4.50?	1.70	6.94	4.73	0.90	4.72	3.47	1.26	2.95	4.53	3.72	13.37	9.18	8.74	8.68	39.97
West Point	0.82	5.09	2.56	7.24	4.34	1.53	4.44	2.58	1.22	4.02	4.31	2.45	14.14	8.55	9.55	8.36	40.60
Watervliet Arsenal	1.32	3.86	0.97	3.53	2.83	3.60	4.43	2.39	1.66	2.62	4.01	2.86	7.33	10.42	8.29	8.04	34.08
Plattsburg Barracks	2.19	1.99	2.03	1.61	3.61	5.35	3.09	3.22	3.36	4.61	3.30	1.84	7.25	11.66	11.27	6.02	36.20
Madison Barracks	2.39	4.52	4.33	3.95	5.08	2.78	7.67	3.53	3.35	6.09	5.85	4.25	13.36	13.98	15.29	11.16	53.79
Fort Ontario	2.61	2.31	3.97	1.91	1.31	2.55	2.57	1.32	1.74	2.48	4.97	4.41	7.19	6.44	9.19	9.33	32.15
Fort Niagara	1.20	3.32	0.37	2.01	2.49	1.69	3.18	2.26	2.99	2.58	2.40	1.42	4.87	7.13	7.97	5.94	25.91
Alleghany Arsenal	0.35	3.01	1.43	2.83	3.57	2.04	4.30	2.66	2.62	1.45	3.67	1.71	7.83	9.00	7.74	5.17	29.74
Carlisle Barracks	0.51	3.00	2.35	4.76	3.41	4.30	3.89	1.49	1.95	1.18	3.73	....	10.52	9.68	6.86	....	....
Fort Mifflin	1.25	4.03	5.60	3.55	4.65	3.00	3.65	3.03	0.94	3.03	3.41	1.90	13.80	9.68	7.38	7.18	38.04
Fort McHenry	1.70	2.90	5.70	4.70	4.60	1.20	4.20	3.30	0.50	2.20	5.60	1.50	15.00	8.79	8.30	6.10	38.10
Fort Washington	....	....	....	....	3.77	1.42	4.92	3.51	2.27	1.95	3.66	1.78	....	9.85	7.88	....	....
Fort Monroe	3.21	2.24	2.23	1.33	2.20	2.51	3.00	4.00	0.76	2.02	2.45	0.91	5.76	9.51	5.23	6.36	26.86?
Fort Moultrie	3.67	2.51	1.93	1.65	0.63	8.25	8.57	5.89	0.29	1.28	3.34	1.10	4.21	22.74	4.91	7.28	39.11
Fort Marion	....	1.71	0.93	2.68	0.64	8.01	3.23	3.38	5.60	0.71	2.72	1.60	4.25	14.62	9.03	....	....
Key West	2.40	0.88	1.50	1.80	5.32	9.24	3.24	6.80	14.00	9.45	2.30	2.64	8.62	19.28	25.75	5.92	59.57
Fort Myers	7.61	3.38	2.09	4.57	2.71	18.51	7.35	3.61	8.01	1.66	0.55	1.50	9.37	29.47	10.22	12.49	61.55
Fort Brooke	....	....	....	....	2.03	6.57	3.18	6.35	6.93	1.85	2.10	3.00	....	16.10	10.88	....	....
Fort Meade	....	....	....	....	3.00	8.67	5.73	6.47	7.67	2.04	1.28	2.37	....	20.87	10.99	....	....
Fort Barrancas	3.50	8.03	0.60	4.52	4.20	0.96	1.11	6.15	1.66	....	8.39	2.54	9.32	8.22	....	14.07	....
Mount Vernon Arsenal	3.89	7.26	0.77	1.14	3.44	5.35	1.84	8.69	4.42	2.07	6.99	2.91	5.35	15.88	13.48	14.06	48.77
East Pascagoula	....	....	....	....	2.25	1.44	6.14	5.32	5.83	....	....	....	....	12.90	....	....	....
New Orleans Barracks	3.82	3.18	1.20	5.49	....	....	....	....	....	3.70	9.00	2.69	....	....	....	9.69	....
Baton Rouge Barracks	0.97	5.27	1.54	2.26	1.42	2.06	2.68	7.96	0.59	2.32	8.91	5.36	5.22	12.70	11.82	11.60	41.34
Fort Towson	1.70	11.09	2.66	2.52	6.33	5.04	....	7.34	0.01	1.13	3.69	....	11.51	....	4.83	....	....
Fort Washita	0.20	5.70	1.35	2.95	4.47	4.20	0.10	1.40	0.60	2.60	5.15	2.80	8.77	5.70	8.35	8.70	31.52
Fort Gibson	0.50	10.42	1.50	0.50	3.20	6.45	1.25	1.15	3.14	9.35?	7.10	7.70?	5.20	8.85	19.59	18.62	52.26?
Fort Scott	0.14	3.60	0.48	0.75	4.39	7.53	2.74	3.89	0.15	2.01	5.49	1.84	5.62	14.16	7.65	5.58	33.01
Jefferson Barracks	0.40	5.05	1.86	2.80	3.97	5.64	4.65	7.06	0.81	2.26	0.38	1.25	8.63	17.35	3.45	6.70	36.13
St. Louis Arsenal	0.28	7.31	1.75	3.30	2.26	3.81	1.39	6.40	0.68	1.51	2.80	2.96	7.31	11.60	4.99	10.55	34.45
Newport Barracks	0.40	13.91	10.09	3.41	7.93	5.12	5.92	6.60	1.43	7.43	10.53	10.85	21.43	17.64	19.44	25.16	83.67?
Detroit Barracks	1.24	3.68	1.37	3.70	5.30	....	....	....	....	....	....	....	10.37	....	....	....	....
Fort Gratiot	1.11	1.77	1.25	2.51	5.36	1.50	3.33	3.56	3.46	2.64	3.25	2.06	9.12	8.39	9.35	4.94	31.80
Fort Mackinac	0.80	0.59	0.41	0.68	1.23	1.91	3.60	0.55	0.50	0.65	0.43	0.35	2.32	6.06	1.58	1.74	11.70?
Fort Brady	2.74	1.28	0.84	2.23	3.11	2.91	5.99	3.67	4.82	4.04	6.12	7.55	6.18	12.57	14.98	11.57	45.30?
Fort Howard	1.12	1.50	0.78	1.58	8.50	3.15	5.07	2.67	3.26	1.10	2.26	0.28	10.86	10.89	6.62	2.90	31.27
Fort Ripley	1.41	0.24	0.26	0.97	5.56	5.50	....	3.15	8.74	1.93	2.82	0.36	6.79	...	13.49	2.01	....
Fort Snelling	0.20	0.13	1.23	2.68	3.96	2.15	2.60	3.29	3.64	1.18	2.31	0.05	7.87	8.04	7.13	0.38	23.42

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1851.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Dodge	....	....	....	....	....	....	....	1.95	2.59	2.43	2.84	0.71	....	....	7 86	....	...
Fort Leavenworth	0.54	0.96	1.03	1.00	6.40	8.16	6.78	5.02	1.10	1.68	3.18	1.96	8.43	19.96	5.96	3.46	37.81
Fort Kearney	1.15	0.97	0.14	0.73	9.43	3.50	2.86	2.78	2.60	0.52	1.00	0.76	10.30	9.14	4.12	2.88	26.44
Fort Laramie	....	....	....	0.16	4.21	0.33	0.32	0.78	0.42	0.36	0.52*	0.88*	....	1.43	1.30	....	....
Fort Arbuckle	0.01	5.40	0.20	2.71	2.61	2.19	1.55	1.16	1.60	1.07	3.39	2.35	5.52	4.90	6.06	7.76	24.24?
Fort Worth	2.70	10.80	4.66	6.61	9.27	0.22	0.16	0.06	0.06	2.24	4.92	0.79	20.54	0.44	7.22	14.29	42.49
Fort Graham	1.80	6.86	3.63	7.88	3.05	0.32	0.11	0.21	0.26	5.25	7.40	4.40	14.56	0.64	12.91	13.06	41.17
Fort Gates	....	....	....	....	....	....	0.49	2.34	0.02	2.62	5.39	2.84	....	....	8.03	....	....
Fort Croghan	1.09	5.01	3.54	7.05	1.06	1.06	2.99	1.00	1.35	3.52	9.80	7.40	11.65	5.05	14.67	13.50	44.87
Austin	....	....	....	....	....	....	....	....	....	....	3.47	2.63	....	....	....	....	...
Fort Martin Scott	0.73	5.14	3.48	8.37	1.18	0.08	0.80	1.20	1.44	1.15	1.50	1.00	13.03	2.08	4.09	6.87	26.07
San Antonio	0.75	6.86	1.45	4.37	2.80	3.74	3.07	0.60	1.20	0.40	3.30	2.30	8.62	7.41	4.90	9.91	30.84
Fort Merrill	....	....	....	3.47	1.41	1.83	4.19	1.31	2.93	0.37	0.85	0.56	....	7.33	4.15	....	....
Corpus Christi	....	....	....	4.32	2.53	5.52	3.97	0.23	4.96	2.71	1.89	1.19	....	9.72	9.56	....	....
Fort Brown	0.95	1.20	0.40	1.15	0.90	2.35	3.65	1.80	5.60	4.10	3.00	4.70	2.45	7.80	12.70	6.85	29.80
Ringgold Barracks	0.84	0.69	0.03	1.21	0.20	1.21	2.20	0.02	5.21	1.20	0.12	1.15	1.44	3.43	6.53	2.68	14.08
Fort McIntosh	0.11	1.69	0.95	1.35	0.37	3.36	0.78	0.00	2.73	1.37	0.87	0.65	2.67	4.14	4.97	2.45	14.23
Fort Duncan	0.70	2.32	0.23	0.88	1.15	2.30	1.10	0.70	1.36	1.50	1.20	0.68	2.26	4.10	4.06	3.70	14.12
Fort Inge	....	3.54	1.45	2.95	1.08	0.73	2.84	3.53	0.73	1.50	1.43	0.29	5.48	7.10	3.66	....	....
Fort Lincoln	0.00?	5.05	2.11	4.86	1.90	0.76	0.89	0.39	0.27	1.36	2.01	0.98	8.87	2.04	3.64	6.03	20.58
El Paso	0.00	0.90	0.00	0.00	0.70	0.02	1.05	2.49	....	....	....	....	0.70	3.56	....	....	....
Fort Fillmore	....	....	....	....	....	....	....	....	1.40?	0.11	2.13	1.74	....	....	3.64	....	....
Dona Ana	....	....	....	....	....	0.03	....	2.32	....	....	....	....	....	....	....	....	....
Fort Conrad	....	....	....	....	....	....	....	....	....	0.03	0.09	0.39	....	....	....	....	....
Socorro	0.02	0.45	....	0.45	0.01	0.00	0.40	2.07	....	....	....	....	....	2.47	....	....	....
Albuquerque	0.07	0.56	0.42	0.04	0.03	0.00	0.30	....	....	....	....	....	0.49	....	....	....	....
Cebolleta (Laguna)	0.15	2.11	0.10	0.94	0.01	0.00	0.25	2.18	5.82	1.60	0.81	1.15	1.05	2.43	8.23	3.41	15.12
Las Vegas (Fort Union)	....	4.23?	0.01	2.11	2.82	0.00	5.10	....	4.63	0.61	1.97	0.33	4.94	....	7.21	....	....
Santa Fe	0.80	0 24	....	0.07	0.07	0.00	....	....	....	....	....	....	....	....	....	....	....
Fort Yuma	0.00	0.01	0.00	0.27	....	....	....	....	....	....	....	....	....	....	....	....	....
San Diego	0.03	1.51	0.34	0.87	0.71	0.01	0.00	0.00	0.02	0.01	0.25	3.74	1.92	0.01	0.28	5.28	7.49
Rancho del Chino	....	....	....	....	....	....	0.00	0.00	0.00	0.00	....	....	....	0.00	....	....	....
San Luis Rey	0.09	0.95	0.21	....	....	....	....	0.00	....	....	....	....	....	....	....	....	....
Monterey	....	....	....	....	....	....	0.01	0.00	0.01	0.20	0.91	4.50	....	....	1.12	....	....
Sonoma	2.64	0.89	4.44	2.07	....	....	....	....	....	....	....	....	....	....	....	....	....
Benicia	0.88	0.23	5.83	1.37	0.59	0.00	0.00	0.00	0.04	0.10	1.34	4.92	7.79	0.00	1.48	6.03	15.30
Fort Miller	....	....	....	....	....	....	....	0.00	0.01	0.00	...	10.41	....	....	....	....	....
Camp Far West	2.06	1.16	3.44	3.06	0.86	0.00	0.00	0.00	0.36	0.10	1.86	6.63	7.36	0.00	2.32	9.85	19.53
Astoria	27.00	10.95	6.10	4.38	5.95	2.85	0.00	2.30	1.94	....	....	....	16.43	5.15	....	....	....
Columbia Barracks	9.55	2.04	4.08	....	....	....	....	....	....	....	....	7.93	....	....	....	19.52	....
Dalles of the Columbia	3.81	1.70	1.79	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Steilacoom	15.30	1.47	2.20	3.09	1.95	0.55	0.36	0.81	2.68	3.96	3.02	3.93	7.24	1.72	9.66	20.70	39.32

* One-tenth the depth of snow.

NOTE.—The measurement of rain at *Fort Trumbull*, *Newport Barracks*, and *Fort Brady*, for the entire year, *Fort Gibson* for the last three months, and *Astoria* for the first two months, is largely in excess. At *Fort Mackinac* the reverse error occurs; and the amounts are obviously too small at *Fort Monroe* and *Fort Arbuckle*.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Sullivan........	157	208	179	31	31	32	25	17	52	48	91	66
Fort Preble..........	191	174	83	39	74	28	11	20	27	63	82	56
Fort Constitution....	180	185	85	31	57	23	31	16	54	33	79	71
Fort Independence (*a*)	135	110	50	9	5	55	4	42	6	72	7	21
Fort Adams..........	176	189	98	12	51	29	28	20	61	50	68	56
Fort Trumbull.......	169	196	118	21	6	70	5	29	8	116	21	111
Fort Hamilton.......	197	168	88	16	44	29	22	20	33	71	37	107
Fort Columbus.......	210	155	94	15	39	43	19	36	42	54	51	80
West Point..........	149	218	105	29	74	17	2	25	94	35	17	104
Watervliet Arsenal..	181	184	88	32	39	2	2	8	96	40	117	59
Plattsburg Barracks..	158	217	83	22	30	24	8	18	108	68	55	45
Madison Barracks....	149	216	109	47	16	53	22	23	81	74	74	22
Fort Ontario........	183	182	75	31	0	69	0	68	0	111	0	92
Fort Niagara........	141	224	106	34	6	60	19	53	35	64	27	99
Alleghany Arsenal...	143	222	114	26	42	60	26	16	35	96	45	34
Carlisle Barracks (*b*)..	172	162	86	12	14	11	63	13	32	14	159	28
Fort Mifflin.........	193	172	110	14	32	35	34	29	53	86	50	53
Fort McHenry.......	198	167	82	11	46	55	14	25	18	63	59	75
Fort Monroe.........	192	173	108	6	14	78	54	30	18	96	27	47
Fort Moultrie........	203	162	126	1	40	71	16	43	44	65	26	57
Fort Marion (*c*)......	230	106	93	0	26	56	80	39	35	23	39	19
Key West..........	212	153	86	0	56	55	121	62	37	12	10	12
Fort Myers..........	248	117	112	0	45	89	46	56	27	44	26	32
Fort Brooke (*a*)......	146	71	68	0	19	39	51	28	17	28	16	36
Fort Meade (*d*)......	135	68	71	0	9	22	33	12	8	7	17	5
Fort Barrancas (*e*)...	166	175	77	1	37	39	19	40	17	49	10	110
Mt. Vernon Arsenal..	204	161	95	2	39	73	36	49	42	23	35	63
N. Orleans Bar'ks (*f*).	179	180	91	0	61	43	74	58	30	23	26	39
Baton Rouge Barracks	205	160	95	0	71	65	69	43	45	19	26	25
Fort Towson (*g*).....	162	172	75	3	44	12	66	24	79	3	28	4
Fort Washita........	222	143	66	4	46	32	60	29	57	53	61	16
Fort Gibson (*h*)......	210	155	48	14	40	34	11	37	94	40	23	27
Fort Scott...........	187	178	71	12	35	43	20	33	82	77	25	41
Jefferson Barracks...	203	162	76	10	42	19	25	43	76	28	57	36
St. Louis Arsenal....	197	168	71	8	52	17	39	36	63	32	64	28
Newport Barracks...	190	175	70	8	99	18	14	10	97	37	40	30
Detroit Barracks (*i*)..	70	81	38	17	9	32	12	4	4	19	51	12
Fort Gratiot.........	172	193	81	46	41	40	32	24	63	64	64	33
Fort Mackinac.......	161	204	100	69	68	14	105	11	31	17	95	18
Fort Brady..........	129	236	77	64	12	12	84	40	27	82	85	24
Fort Howard........	140	225	83	41	57	21	24	7	81	48	59	116
Fort Ripley (*k*)......	169	165	71	42	44	39	15	50	55	27	41	34
Fort Snelling........	233	132	71	36	32	54	21	57	37	70	30	57
Fort Dodge (*l*).......	70	83	40	14	9	16	8	20	22	19	14	22
Fort Leavenworth....	169	196	79	21	81	47	6	14	110	53	7	32

OBSERVATIONS FOR 1851.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
123	232	130	357	110	296	67	147	210	473	194	452	365	790	262	599
298	861	111	309	44	118	82	205	109	240	252	632	330	625	225	477
228	544	92	225	124	411	64	145	217	532	132	290	317	707	283	796
20	28	220	643	14	18	168	325	23	36	289	785	28	81	86	343
205	776	115	549	113	318	82	202	243	612	201	533	272	736	226	870
23	55	280	805	18	52	117	249	32	58	466	871	87	183	445	1056
175	483	117	301	87	206	82	198	133	364	283	832	147	492	430	1445
157	331	172	383	76	128	143	312	170	387	218	479	203	494	321	815
295	789	67	147	7	17	101	216	376	767	142	260	68	143	414	1045
156	508	10	33	8	24	33	104	386	1366	159	469	470	1623	235	760
119	186	97	140	32	40	73	93	434	680	272	341	221	276	181	288
66	175	212	430	87	165	94	196	325	836	294	786	295	793	88	251
0	0	276	537	1	1	273	577	0	0	445	864	0	0	367	889
25	56	240	554	77	143	212	468	140	313	257	573	107	275	397	1214
168	213	242	355	105	125	65	87	140	230	384	923	180	524	135	330
56	132	46	93	253	530	53	114	126	284	55	122	637	1425	113	340
129	335	139	381	138	344	97	294	211	567	343	859	202	549	211	658
182	398	220	463	56	109	101	204	71	127	254	456	237	454	301	694
55	145	311	794	214	517	119	264	74	169	386	917	110	245	188	451
162	666	285	1222	65	184	174	583	178	653	261	964	106	344	227	820
106	204	225	720	319	849	155	395	139	239	94	170	155	282	75	177
223	902	222	901	486	1743	249	827	147	402	47	126	39	108	48	197
180	385	356	834	185	373	224	449	107	204	178	408	104	269	128	317
77	145	155	347	206	333	114	207	67	112	112	196	64	101	146	71
35	85	90	199	132	311	47	108	34	68	27	54	68	163	19	92
147	229	157	349	76	157	161	527	67	185	197	609	39	105	442	634
157	336	294	572	145	234	196	380	169	245	92	187	141	206	253	592
244	462	173	307	298	617	233	507	121	282	92	245	106	176	156	266
283	541	259	459	275	497	171	350	180	302	75	163	104	150	102	196
178	276	47	108	266	458	96	249	318	621	11	25	111	173	17	86
185	483	127	251	241	479	117	273	230	524	212	388	245	302	84	160
159	344	135	128	43	95	149	301	378	644	159	350	92	162	110	227
142	319	171	303	80	147	134	241	330	872	307	832	98	172	165	357
167	344	76	135	99	226	171	368	305	664	111	266	228	499	145	483
210	369	67	111	155	227	146	204	251	353	127	224	256	479	112	255
397	1199	74	144	57	99	43	90	388	731	147	392	159	397	122	363
37	58	128	243	47	90	18	41	16	40	76	172	206	470	50	103
163	353	162	408	128	226	98	193	254	494	254	505	256	499	131	284
274	621	58	142	422	1210	43	102	124	358	70	207	379	1057	73	219
47	169	49	152	335	969	162	498	110	307	329	1006	341	1191	96	288
227	577	85	235	95	138	29	66	325	844	192	407	236	555	64	134
177	449	158	401	60	130	202	473	220	552	110	229	166	484	134	380
128	290	218	478	84	188	227	464	149	321	280	647	120	272	228	531
38	93	63	132	34	93	80	254	89	277	78	270	54	132	87	260
323	475	188	253	24	33	58	81	442	639	215	436	28	49	127	213

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Kearney (*m*)....	180	154	52	23	77	63	14	42	59	3	14	12
Fort Laramie........	244	121	38	25	24	42	16	15	11	25	101	64
Fort Atkinson.......	234	131	50	21	56	51	13	76	71	23	14	35
Fort Arbuckle (*n*)....	251	111	57	3	29	25	19	34	76	59	43	13
Fort Worth.........	281	84	49	1	65	27	56	45	73	15	5	8
Fort Belknap (*o*).....	144	40	18	1	42	3	5	36	50	11	4	10
Fort Graham........	227	138	79	1	20	45	19	69	36	115	9	31
Fort Gates..........	237	128	80	0	36	26	15	52	125	43	25	23
Fort Croghan	248	117	69	1	28	31	12	91	92	44	17	36
Austin (*p*)	165	110	65	1	12	13	13	64	46	24	19	23
Fort Martin Scott ...	246	119	68	2	44	40	16	90	85	15	5	11
San Antonio.........	249	116	59	1	39	53	68	95	57	14	14	11
Fort Merrill (*p*)......	194	91	55	0	25	12	16	66	49	6	7	7
Corpus Christi (*p*)....	137	148	62	0	11	32	23	102	35	21	2	31
Fort Brown	175	190	42	0	30	40	73	106	65	19	26	15
Ringgold Barracks...	215	150	55	1	21	21	58	55	132	10	5	29
Fort McIntosh.......	219	146	63	0	18	60	54	170	11	7	5	30
Fort Duncan	275	190	47	0	50	28	90	99	65	8	5	6
Fort Inge (*q*)........	181	253	69	0	13	48	76	109	3	2	1	4
Fort Lincoln	219	146	59	0	25	44	18	171	37	15	4	26
El Paso (*r*)..........	296	38	51	1	16	39	60	33	11	37	95	51
Albuquerque	166	46	18	6	15	20	5	9	14	18	19	14
Cebolletta (*s*)........	267	95	37	20	32	17	15	37	34	61	81	52
San Diego	223	142	37	0	7	38	35	34	44	109	58	20
Rancho del Chino (*o*).	141	40	10	0	0	4	0	9	5	119	42	0
Monterey (*o*)	95	70	22	0	5	1	1	5	7	13	36	14
Benicia	294	71	51	0	5	4	22	16	31	138	96	13
Fort Miller (*l*).......	136	17	27	0	3	3	23	14	7	10	12	2
Camp Far West.....	303	62	61	0	12	5	1	63	56	24	12	41
Astoria (*t*)..........	99	154	110	4	3	11	44	11	2	77	31	74
Fort Steilacoom (*u*)..	108	257	136	6	27	22	45	43	4	92	39	94

(*a*) Last eight months.
(*b*) Eleven months.
(*c*) Last ten months.
(*d*) Last seven months.
(*e*) Eleven months, October omitted.
(*f*) May to September at *East Pascagoula.*
(*g*) Eleven months, December excepted.
(*h*) Winds inaccurate, and omitted in December.
(*i*) First five months.
(*k*) Eleven months, July not observed.
(*l*) Last five months.
(*m*) Eleven months, March not observed.
(*n*) Four days of April omitted.
(*o*) Last six months.
(*p*) Last nine months.
(*q*) Eleven months, January not observed.
(*r*) No observations of weather in March.
(*s*) Three days of October omitted, and remainder of the year at *Laguna.*
(*t*) First nine months.
(*u*) Inaccurate.

OBSERVATIONS FOR 1851.

WINDS.															
No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
309	788	251	604	56	113	167	458	238	690	14	24	54	106	48	153
95	264	168	461	65	125	62	148	44	91	101	216	403	678	256	691
223	....	205	....	53	....	306	....	284	....	92	....	56	....	140	....
116	183	99	156	76	141	138	278	305	603	235	477	174	362	53	119
260	184	109	184	223	388	182	395	293	658	61	117	22	36	31	73
168	401	11	20	19	46	144	343	200	565	46	118	17	32	42	88
81	233	180	380	77	142	278	524	144	280	462	1005	35	60	123	309
145	442	105	310	60	179	210	714	502	1121	172	489	99	188	94	246
112	337	125	293	49	112	363	907	370	878	176	311	67	134	146	369
48	204	54	182	53	159	265	624	186	417	94	211	75	127	92	349
175	344	162	353	64	97	361	735	339	607	60	97	19	34	44	94
158	227	211	324	273	371	379	603	227	292	58	84	55	87	45	66
100	236	48	112	64	123	265	611	195	381	24	57	28	51	29	56
45	174	129	459	91	238	407	1180	140	294	84	143	8	15	124	413
121	262	161	299	293	601	425	930	260	466	76	155	103	200	59	134
84	230	86	238	234	637	221	716	530	1797	40	104	19	23	117	315
73	116	240	367	217	307	680	1206	44	54	29	35	22	24	119	257
201	478	113	249	360	795	397	973	260	587	31	67	21	48	26	169
51	81	191	414	303	610	436	844	14	24	8	18	6	10	14	30
102	271	175	401	72	159	686	1533	148	402	60	114	18	38	97	163
66	110	158	345	241	461	134	311	46	87	150	392	380	884	204	517
61	90	81	164	20	65	37	136	54	152	72	222	75	224	56	163
127	232	67	100	59	143	148	165	137	271	243	338	326	742	218	566
30	45	152	179	140	178	137	172	178	261	437	668	232	457	82	133
0	0	15	59	1	3	38	89	21	34	475	863	166	323	0	0
20	23	3	4	5	8	19	33	27	58	53	91	144	255	56	106
19	42	16	38	90	178	63	149	123	376	554	1570	384	1130	51	118
13	20	13	24	93	139	57	100	30	44	39	73	50	78	6	8
49	55	18	21	5	6	254	479	222	396	95	164	50	60	166	273
14	24	45	74	177	277	45	61	8	12	310	528	124	223	296	731
110	....	89	....	179	....	171	....	15	....	370	....	155	....	378	....

The post at Cebolletta was removed in October 20 miles southward to Laguna, on the San Josē river, a branch of the Rio Puerco.

Fort Union, near the eastern base of the Moro mountains, on a branch of the Canadian river.

Rayado, near the Raton mountains, on a branch of the Canadian river.

Abiquiu, near the Jemez mountains, on a tributary of the Rio Grande from the west.

Fort Defiance, a district of greatly elevated mēsas and mountains west of the principal chain of the Sierra Madre, and near the source of the Rio de Chelly, a tributary of the Colorado of California.

MONTH OF JANUARY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	19.13	22.32	25.71	21.48	22.16	39	— 8	16.8	30.2	1	3	22	61	6	18
Fort Preble	14.61	17.48	23.25	18.38	18.43	41	—13	22.6	31.4	44	160	1	4	0	0
Fort Constitution	15.48	19.35	25.35	18.87	19.76	42	—10	22.3	29.7	13	26	18	59	10	34
Fort Independence	20.00	22.61	28.48	21.67	23.19	44	0	20.8	23.2	47	71	0	0	0	0
Fort Adams	24.51	24.93	29.22	27.32	26.49	44	2	17.5	24.5	23	107	13	70	0	0
Fort Trumbull	23.20	25.80	29.40	25.00	25.85	48	0	12.2	25.8	0	0	13	15	0	0
Fort Hamilton	21.70	25.90	29.40	24.70	25.42	46	— 1	20.6	26.4	26	73	11	27	0	0
Fort Columbus	20.64	24.48	28.87	23.32	24.33	42	— 2	17.7	26.3	31	124	18	61	6	12
West Point	17.87	21.45	26.45	20.52	21.57	45	— 4	23.4	25.6	34	92	4	9	1	2
Watervliet Arsenal	11.58	17.38	22.54	15.16	16.67	38	—14	21.2	30.8	19	67	0	0	0	0
Plattsburg Barracks	10.29	12.06	19.58	13.67	13.90	34	—16	20.1	29.9	20	23	31	62	0	0
Madison Barracks	11.51	13.80	19.38	15.03	14.93	39	—11	14.1	25.9	6	15	35	83	12	43
Fort Ontario	16.87	17.67	22.45	19.29	19.07	41	— 4	21.9	23.1	0	0	42	100	0	0
Fort Niagara	20.12	20.29	24.25	22.06	21.68	43	— 5	21.3	26.7	7	29	4	15	9	42
Alleghany Arsenal	19.41	22.77	28.90	23.41	23.62	46	—14	22.4	37.6	19	32	11	16	0	0
Carlisle Barracks	19.50	23.10	28.23	21.19	23.00	49	—12	26.0	35.0	8	17	11	20	15	43
Fort Mifflin	32.21	32.19	35.17	33.09	33.16	45	17?	11.8	16.2?	6	9	28	84	3	4
Fort McHenry	22.29	26.51	34.96	28.29	28.01	50	— 5	22.0	33.0	23	41	15	25	0	0
Fort Washington	24.41	27.41	37.77	27.64	29.31	54	— 4	24.7	33.3	8	33	14	39	0	0
Fort Monroe	31.20	32.52	40.83	36.20	35.19	62	7	26.8	28.2	2	3	15	29	2	2
Fort Moultrie	38.03	41.87	49.93	42.83	43.16	61	14	17.8	29.2	9	23	13	27	0	0
Fort Marion	41.93	51.06	56.87	47.19	49.26	75	22	25.7	27.3	11	38	16	50	5	8
Fort Pierce	47.93	55.51	62.45	53.76	54.91	75	29	20.1	25.9	28	88	6	13	8	21
Key West Barracks	60.84	63.74	67.03	63.19	61.20	76	49	14.8	12.2	58	250	29	81	10	27
Fort Myers	52.58	56.06	65.74	58.35	58.16	78	31	19.9	27.1	18	41	11	28	10	31
Fort Brooke	44.87	50.87	60.22	54.83	52.70	75	30	22.3	22.7	19	37	10	20	8	9
Fort Meade	43.80	53.06	61.45	50.09	52.10	79	24	26.9	28.1	29	33	10	11	4	5
Fort Barrancas	37.00	43.22	52.54	43.87	44.16	66	10	21.8	34.2	23	30	3	5	1	1
Mount Vernon Arsenal	35.25	38.61	52.57	42.16	42.15	74	9	31.9	33.1	20	60	9	24	7	14
New Orleans Barracks	39.13	45.27	56.50	45.47	46.59	74	17	27.4	29.6	23	62	19	45	24	50
Baton Rouge Barracks	33.25	43.00	53.96	40.80	42.78	72	8	29.2	34.8	26	43	17	28	15	22
Fort Washita	30.19	35.09	48.06	37.51	37.71	69	0	31.3	37.7	10	15	5	9	7	8
Fort Gibson	27.40	33.50	45.60	32.80	34.82	70	— 4	35.2	38.8	8	20	0	0	0	0
Fort Scott	23.96	27.35	34.03	28.45	28.45	60	— 8	31.5	36.5	30	79	4	17	1	1
Jefferson Barracks	22.58	26.67	35.90	27.64	28.20	62	—12	33.8	40.2	38	168	9	37	19	48
St. Louis Arsenal	22.19	26.19	37.51	25.46	27.84	61	—14	33.2	41.8	10	21	3	7	1	3
Newport Barracks	22.61	26.45	32.00	28.00	27.26	58	—14	30.7	41.3	62	152	8	18	10	21
Fort Gratiot	17.93	21.83	26.80	21.06	21.90	47	—15	25.1	36.9	2	4	7	19	2	2
Fort Mackinac	11.12	15.06	20.87	15.16	15.80	36	—20	20.2	35.8	46	112	7	19	25	78
Fort Brady	5.48	11.18	19.19	10.89	11.69	38	—24	26.3	35.7	5	10	4	11	29	55
Fort Howard	11.70	14.29	21.80	14.77	15.64	43	—22	27.4	37.6	22	68	0	0	0	0
Fort Ripley	5.06	8.70	17.32	9.25	10.08	43	—36	32.9	46.1	18	47	12	38	0	0
Fort Snelling	8.87	12.25	16.64	13.51	12.82	44	—32	31.2	44.8	12	23	19	32	7	11
Fort Dodge	14.58	18.96	22.93	18.83	18.82	52	—28	33.2	46.8	18	49	3	3	1	5
Fort Leavenworth	19.80	22.19	30.29	25.41	24.42	59	—14	24.6	38.4	41	68	9	21	1	1
Fort Kearney	16.08	21.95	33.20	21.06	23.07	59.5	—28	36.4	51.1	75	226	3	5	1	1
Fort Laramie	25.06	28.74	37.32	31.61	30.68	60	—13	29.3	43.7	40	161	4	15	0	0

MONTH OF JANUARY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	5	0	0	13	37	19	58	49	141	3.97	3.03	2.32	2.60	2.98	9	22	4	8	4.30	
0	0	6	14	12	30	23	50	36	101	5.80	6.00	5.50	4.83	5.53	10	21	3	14	4.79	Clearness inaccurate.
4	12	2	9	9	16	21	47	42	101	2.29	3.25	3.35	4.70	3.40	13	18	1	15	3.51	
14	35	0	0	23	89	0	0	19	94	2.80	4.22	4.51	5.58	4.28	12	19	3	9	3.50	
1	1	2	6	27	82	28	74	28	106	2.64	2.48	2.84	4.80	3.19	10	21	5	8	4.43	
18	59	0	0	10	34	9	25	74	162	3.00	3.90	4.00	5.00	3.97	14	17	4	7	4.38	
0	0	5	10	15	44	25	94	40	124	5.50	4.30	4.20	5.30	4.82	15	16	2	8	1.94	
5	12	3	4	9	19	4	7	38	152	5.64	5.45	6.09	5.38	5.64	16	15	1	7	2.92	
3	6	17	24	10	14	6	24	45	131	3.26	3.87	3.52	4.58	3.81	11	20	2	14	1.80	
0	0	26	81	6	17	40	150	34	127	....	....	....	....	....	14	17	0	11	2.88	
1	2	30	69	13	23	12	15	15	17	2.16	2.30	2.19	2.21	2.22	10	21	0	7	0.90	
15	30	15	51	11	29	12	21	10	25	1.52	1.74	1.96	1.61	1.71	5	26	0	17	2.90	
31	41	0	0	35	89	0	0	12	39	4.03	4.77	4.38	3.51	4.17	12	19	0	14	2.76	
21	47	6	27	31	128	7	22	33	146	1.45	2.19	2.41	3.09	2.28	8	23	0	14	1.00	
3	4	11	33	36	187	4	16	4	8	2.22	1.87	1.32	2.51	1.98	7	24	3	10	1.80	
7	9	0	0	15	32	37	118	32	80	5.26	6.70	6.27	6.19	6.10	13	18	1	8	1.18	
0	0	6	8	35	100	19	44	24	85	1.18	3.01	3.25	4.09	2.88	9	22	2	7	2.40	Therm. protected.
2	2	1	1	1	3	24	39	28	65	5.03	4.83	4.48	5.35	4.92	16	15	1	6	2.60	
6	19	4	12	25	75	10	27	46	171	4.00	4.00	3.64	4.61	4.06	14	17	1	7	1.54	
2	3	1	1	50	93	3	10	43	102	5.06	5.03	4.93	5.80	5.20	18	13	6	3	0.93	
10	30	6	27	31	113	18	84	30	150	6.41	6.25	6.61	6.54	6.45	20	11	3	1	0.51	
3	8	3	7	4	14	37	110	40	126	5.64	6.64	6.63	7.58	6.62	23	8	4	0	0.32	
2	5	4	8	6	14	52	96	16	35	4.06	4.71	4.48	6.06	4.85	17	14	4	0	....	
1	1	1	2	1	6	3	11	12	45	3.77	4.22	3.74	6.03	4.44	14	17	4	0	1.82	
7	18	10	19	4	15	16	30	17	60	5.20	5.20	5.51	5.61	5.38	18	13	4	0	1.54	
5	8	5	12	5	8	16	29	43	96	6.41	6.38	6.32	8.77	6.97	23	8	3	0	0.95	
3	4	1	1	5	7	42	50	21	34	2.61	6.19	6.67	7.00	5.62	20	11	4	0	0.69	
2	4	3	7	5	8	16	36	55	131	5.45	5.83	5.84	6.16	5.82	17	14	5	3	0.97	
8	19	16	38	5	7	0	0	39	115	4.32	6.00	6.03	6.16	5.63	18	13	4	2	1.92	
11	25	5	10	5	13	4	8	26	66	4.42	4.45	4.80	6.35	5.00	15	16	2	2	0.80?	
5	11	17	32	6	12	17	40	13	37	5.58	6.25	6.22	7.51	6.39	21	10	4	2	1.56	
10	15	24	30	9	11	36	43	15	23	6.80	7.32	7.54	8.00	7.41	23	8	4	1	1.37	
5	11	13	27	8	18	4	8	12	35	4.30	4.30	4.60	5.20	4.60	15	16	3	2	1.58	
4	5	6	10	46	125	10	25	18	44	5.03	4.51	4.64	6.35	5.13	18	13	6	2	2.22	
10	14	9	11	12	38	13	39	11	60	4.60	4.68	5.06	3.00	4.34	16	15	2	6	3.34	
4	5	11	11	11	14	29	64	25	90	....	....	....	....	....	..	..	2	4	1.21?	
3	6	12	29	10	28	8	20	15	38	3.78	4.16	4.39	3.65	4.00	17	14	4	6	....	
20	30	18	28	31	79	32	39	20	57	1.90	2.38	2.64	4.00	2.73	10	21	1	13	1.28	
2	4	8	18	1	3	8	23	18	55	....	....	....	....	....	10	21	0	15	0.20?	Weather inaccurate.
21	50	23	85	12	28	20	58	2	9	1.18	2.14	1.25	1.11	1.42	8	23	0	14	5.96?	
0	0	18	41	17	26	29	39	7	12	3.70	3.09	4.22	5.35	4.09	14	17	1	6	1.77	
0	0	32	70	10	20	28	81	11	35	4.77	4.78	5.67	5.90	5.28	15	16	1	4	0.13	
10	27	10	15	24	56	8	18	28	53	6.45	6.51	8.45	8.22	7.41	18	13	0	3	0.06	Clearness inaccurate.
1	1	3	9	26	82	12	23	61	151	3.06	3.70	3.00	5.29	3.76	14	17	0	9	1.09	
2	2	17	24	16	35	2	4	20	40	3.90	3.91	3.35	3.48	3.66	14	17	2	7	0.96	
6	11	16	36	1	1	9	13	9	21	5.51	4.64	5.48	5.93	5.39	17	14	1	4	0.12	
0	0	0	0	0	0	3	9	59	260	4.96	4.67	5.38	5.68	5.17	16	15	1	3	0.72?	

MONTH OF JANUARY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Atkinson	23.32	27.58	39.61	27.87	29.60	60	— 6	30.4	35.6	48	196	10	21	4	7
Fort Arbuckle	29.19	33.77	47.97	36.16	36.77	69	0	32.2	36.8	27	62	7	9	0	0
Fort Belknap	28.70	41.35	51.61	35.93	39.40	76	2	36.6	37.4	40	126	4	8	1	3
Phantom Hill	29.70	42.93	56.35	40.35	42.33	82	0	39.7	42.3	18	49	8	28	10	15
Fort Worth	32.35	42.03	51.25	37.90	40.88	72	5	31.1	35.9	23	47	3	6	4	7
Fort Gates	31.80	42.35	54.32	40.87	42.34	76	10	33.7	32.3	30	96	4	13	13	24
Fort Graham	35.70	41.77	55.51	43.06	44.01	79	15	35.0	29.0	18	51	11	20	0	0
Fort Croghan	29.97	40.58	56.55	44.45	42.89	84	8	41.1	34.9	6	27	1	1	0	0
Austin	32.00	40.22	56.09	41.45	42.44	78	10	35.6	32.4	6	26	7	20	16	42
San Antonio	40.51	45.54	57.12	48.77	47.98	71	14	23.0	34.0	8	17	30	41	23	25
Fort Martin Scott	31.77	41.12	50.45	42.41	41.44	68	7	26.6	34.4	16	36	5	8	6	7
Fort Brown	48.68	58.83	61.38	53.03	55.48	78	*22	12.5	33.5	13	29	14	30	27	57
Ringgold Barracks	43.90	51.93	62.51	52.74	52.77	80	25	27.2	27.8	36	123	8	22	9	21
Fort McIntosh	39.42	51.84	62.33	48.87	50.59	83	19	32.4	31.6	18	28	19	25	10	14
Fort Duncan	33.25	49.06	61.87	47.64	47.96	80	12	32.0	36.0	3	10	6	25	18	30
Fort Inge	31.29	45.25	59.96	41.86	44.59	75	13	30.4	31.6	12	34	14	24	20	45
Fort Lincoln	35.06	44.29	60.77	46.00	46.53	80	12	33.5	34.5	25	35	39	64	4	4
Fort Fillmore	22.35	42.41	60.06	32.93	39.69	71	10	31.3	29.7	11	17	17	22	14	15
Fort Conrad	16.71	36.23	51.38	28.74	33.27	61	4	27.7	29.3	49	140	4	12	1	1
Laguna	33.94	38.03	43.35	40.32	38.91	53	21	14.1	17.9	5	15	5	8	18	20
Fort Union	16.54	33.00	42.67	26.54	29.69	60	— 9	30.3	38.7	18	42	8	17	13	32
San Diego	44.25	53.67	63.93	50.41	53.07	72	38	18.9	15.1	1	1	27	29	29	41
Rancho del Chino	43.58	58.45	66.48	53.22	55.43	78	35	22.6	20.4	0	0	5	19	0	0
Monterey	46.32	58.90	66.74	52.48	56.11	76	36	19.9	20.1	1	1	0	0	0	0
Benicia	43.29	47.24	54.16	48.10	48.20	61	34	12.8	14.2	4	10	3	7	69	183
Fort Miller	41.45	48.31	58.16	45.16	48.27	63	32	14.7	16.3	11	14	8	11	25	28
Camp Far West	40.93	44.83	55.64	45.06	46.61	64	30	17.4	16.6	3	..	5	..	1	..
Columbia Barracks	39.25	40.51	50.01	41.19	42.74	61	22	18.3	20.7	6	12	16	51	8	24
Fort Steilacoom	39.67	43.54	48.58	41.25	43.26	60	25	16.7	18.3	0	0	14	27	12	22

MONTH OF JANUARY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	4	14	38	0	0	8	15	32	82	5.67	5.93	6.96	7.51	6.52	19	12	4	3	....	
6	7	22	45	14	30	18	27	2	7	7.93	8.09	8.64	8.74	8.35	21	10	2	0	1.86	
16	46	16	49	12	27	6	10	18	61	4.22	8.32	7.35	8.51	7.10	22	9	2	2	....	
1	1	25	45	34	59	6	8	1	2	6.19	6.61	6.93	7.19	6.73	21	10	2	2	....	
10	23	28	53	11	18	6	10	15	25	7.96	7.67	8.16	8.38	8.04	23	8	2	2	1.35	
8	18	20	47	13	26	12	28	10	21	7.03	7.45	8.09	8.25	7.70	23	8	2	1	1.23	
19	27	4	12	27	57	7	8	36	72	3.00	6.36	7.16	7.74	6.06	22	9	3	1	0.64	
8	26	1	1	29	85	20	70	53	188	6.42	6.19	6.81	5.87	6.32	20	11	3	2	1.70	
12	37	4	11	7	19	19	52	18	66	5.54	5.74	6.09	6.51	5.97	18	13	6	2	0.85	
4	5	21	24	9	11	9	14	8	12	7.35	7.25	7.70	7.54	7.46	19	12	4	1	1.00	Inaccurate.
12	14	11	13	5	7	6	6	13	23	7.80	7.48	7.49	7.09	7.47	23	8	3	1	0.60	
23	52	12	24	11	22	17	34	18	37	4.03	4.67	4.33	4.36	4.35	16	15	1	0	0.50	* " Coldest day on record at the post," Jan. 14.
6	21	24	62	1	1	0	0	18	52	3.94	4.96	4.51	5.29	4.68	15	16	3	0	1.00	
28	42	9	10	2	2	6	7	24	39	4.35	4.68	4.81	5.55	4.85	16	15	4	0	0.46	
39	61	6	11	10	14	4	5	31	52	7.77	8.19	8.16	7.35	7.87	24	7*	4	0	0.28	
5	9	2	4	1	2	4	8	3	9	4.03	5.16	5.61	6.77	5.39	18	13	4	0	0.34	
19	25	4	6	9	12	6	8	15	21	5.00	5.42	5.09	4.35	4.97	19	12	5	1	0.26	
7	12	12	14	7	19	11	16	11	24	8.87	9.06	8.38	8.83	8.78	24	7	2	0	....	
1	2	19	45	4	11	28	44	4	6	7.30	7.24	6.93	8.00	7.37	23	8	1	3*	0.01	* On mountains near the post.
5	5	2	3	8	14	43	112	28	62	7.10	7.13	7.23	7.35	7.20	22	9	..	..	....	Therm. protected.
6	12	5	7	8	15	9	19	21	43	7.70	8.32	8.63	4.93	7.39	20	11	0	4	0.48	Inaccurate.
6	6	7	9	17	33	15	24	13	20	6.06	6.22	6.74	6.64	6.41	22	9	3	0	0.58	
8	30	40	100	57	150	7	11	8	14	6.09	5.96	6.70	7.35	6.52	20	11	0	0	0.00?	
0	0	0	0	31	37	56	72	13	19	8.61	8.09	8.70	8.48	8.47	23	8	2	0	0.40	
10	23	4	6	5	16	14	29	0	0	3.60	3.12	4.29	5.10	4.03	13	18	3	0	0.36	
7	11	8	11	5	8	9	10	1	1	5.51	6.67	8.06	8.26	7.12	23	8	3	0	0.42	
9	..	1	..	0	..	2	..	9	..	4.12	4.29	5.41	5.25	4.77	15	16	6	0	1.60	
60	158	5	14	9	27	1	1	21	40	4.35	4.90	5.98	5.29	5.13	17	14	17	0	9.31	
41	69	2	6	28	95	0	0	18	31	1.12	1.29	1.83	2.58	1.71	7	24	18	0	11.50	

MONTH OF FEBRUARY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	22.10	26.31	33.59	25.72	26.93	53	— 4	26.1	30.9	9	26	6	20	9	22
Fort Preble	17.44	22.93	29.03	22.75	23.04	45	— 9	12.0	32.0	13	49	4	17	3	15
Fort Constitution	20.65	24.65	30.62	24.17	25.02	46	0	21.0	25.0	27	40	6	12	6	29
Fort Independence	24.24	27.17	35.51	26.96	28.50	50	7	21.5	21.5	0	0	23	97	0	0
Fort Adams	27.34	28.72	33.34	30.72	30.03	48	7	18.0	23.0	13	56	5	15	7	31
Fort Trumbull	27.31	30.17	34.45	30.20	30.53	49	9	18.5	21.5	1	1	15	42	1	6
Fort Hamilton	26.90	32.20	35.60	27.20	30.48	56	8	25.5	22.5	10	22	13	33	3	6
Fort Columbus	27.13	30.65	34.75	30.44	30.74	49	10	18.3	20.7	6	16	10	33	7	17
West Point	24.07	27.83	34.07	28.79	28.69	55	4	26.3	24.7	18	40	1	1	2	3
Watervliet Arsenal	20.08	25.58	32.24	25.17	25.77	50	3	24.2	22.8	2	6	0	0	0	0
Plattsburg Barracks	17.07	20.84	24.89	21.41	21.05	46	—11	25.0	32.0	5	9	12	14	4	5
Madison Barracks	19.00	22.62	27.82	22.68	23.03	49	—12	26.0	35.0	11	22	9	19	4	17
Fort Ontario	22.24	24.06	29.51	24.10	24.98	48	3	23.0	22.0	0	0	3	3	0	0
Fort Niagara	23.62	26.24	31.34	26.68	26.97	43	9	16.0	18.0	0	0	2	7	3	9
Alleghany Arsenal	27.37	30.82	36.86	30.45	31.37	54	5	22.6	26.4	23	33	8	12	2	2
Carlisle Barracks	24.51	29.55	36.80	29.90	30.19	54	3	23.8	27.2	3	4	1	3	23	47
Fort Mifflin	30.27	34.84	41.01	33.93	35.01	52	9	17.0	26.0	3	7	8	25	9	19
Fort McHenry	29.72	35.79	42.96	34.96	35.86	58	15	22.1	20.9	12	19	14	39	3	4
Fort Washington	31.68	37.10	44.89	34.71	37.09	65	16	27.9	21.2	7	24	13	36	3	9
Fort Monroe	39.68	41.03	46.55	43.21	42.62	68	27	15.4	15.6	5	9	34	64	3	5
Fort Moultrie	47.79	52.34	59.44	52.13	52.92	77	33	24.1	19.9	13	54	32	67	1	1
Fort Marion	52.24	63.80	67.44	57.76	60.31	82	36	21.7	23.3	14	47	8	22	17	27
Fort Pierce	55.86	66.07	74.24	63.72	64.97	87	45	22.0	20.0	14	44	2	6	12	29
Key West Barracks	66.48	70.07	73.86	69.69	70.02	83	57	13.0	13.0	38	156	23	67	18	58
Fort Myers	60.38	68.03	76.62	67.00	68.01	86	50	18.0	19.0	10	18	8	18	13	35
Fort Brooke	55.51	61.03	69.44	64.27	62.56	78	43	15.4	19.6	10	16	7	12	6	11
Fort Meade	52.27	63.79	75.48	62.62	63.54	87	34	13.5	29.5	28	34	12	15	4	5
Fort Barrancas	49.76	58.14	64.14	56.56	57.15	72	32	14.9	25.1	8	12	7	11	4	11
Mount Vernon Arsenal	50.89	59.51	68.79	59.00	59.55	81	32	21.4	27.6	9	22	19	30	3	5
New Orleans Barracks	55.20	60.82	70.84	61.56	62.10	80	39	17.9	23.1	19	42	2	3	13	29
Baton Rouge Barracks	51.06	61.31	69.89	56.96	59.81	77	28	17.2	31.8	12	23	6	14	29	48
Fort Washita	42.58	47.68	57.48	49.90	49.41	75	29	25.6	20.4	14	32	17	34	19	37
Fort Gibson	40.00	44.65	57.00	46.48	47.03	73	26	26.0	21.0	21	46	11	12	9	13
Fort Scott	32.75	37.00	47.24	39.44	39.11	68	14	28.9	25.1	12	31	31	67	9	21
Jefferson Barracks	32.32	37.55	45.03	38.41	38.33	68	14	29.7	24.3	17	37	2	2	26	40
St. Louis Arsenal	27.45	34.86	44.02	34.80	35.28	65	13	29.7	22.3	22	47	2	2	18	26
Newport Barracks	34.20	36.80	42.20	38.60	37.95	54	19	16.1	18.9	23	78	18	45	16	55
Fort Gratiot	20.03	27.24	32.00	25.41	26.17	50	—14	23.8	40.2	4	10	2	9	1	3
Fort Mackinac	15.10	21.68	26.48	17.20	20.14	40	—21	19.9	41.1	35	88	3	7	19	40
Fort Brady	8.82	14.45	22.59	10.65	14.13	38	—26	23.9	40.1	6	19	0	0	23	105
Fort Howard	16.00	19.96	29.24	21.96	21.79	49	—25	27.2	46.8	13	22	4	12	0	0
Fort Ripley	11.17	17.06	26.89	15.00	17.53	47	—14	29.5	31.5	20	47	4	7	0	0
Fort Snelling	16.58	22.00	29.62	24.37	23.14	49	—13	25.9	26.1	9	19	7	11	1	2
Fort Dodge	22.27	32.31	34.55	26.27	28.85	55	— 6	26.1	34.9	5	21	3	3	6	18
Fort Leavenworth	29.44	32.72	41.51	35.62	34.82	58	9	23.2	25.8	19	32	17	20	1	1
Fort Kearney	23.77	30.34	40.87	28.74	30.93	63	—10	32.1	40.9	32	94	16	34	10	15
Fort Laramie	27.50	31.13	41.51	31.93	33.02	61	— 4	28.0	37.0	21	51	27	85	5	18

MONTH OF FEBRUARY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	21	1	1	32	72	37	97	14	29	4.59	4.52	5.10	4.54	4.69	17	12	5	4	3.60	
1	5	5	7	26	70	20	33	37	106	5.58	6.13	6.24	4.89	5.71	15	14	4	5	2.56	
6	31	4	9	11	27	14	26	33	88	3.58	4.79	5.86	6.31	5.13	16	13	3	7	2.55	
11	41	0	0	34	128	0	0	25	80	5.17	5.58	6.62	6.86	6.06	18	11	4	5	1.32	
5	15	10	29	28	78	24	70	22	75	4.31	4.03	4.45	6.38	4.79	14	15	4	8	5.41	
8	22	0	0	10	28	13	45	65	143	4.08	6.00	6.00	6.01	5.52	18	11	5	7	6.02?	
2	4	4	14	15	52	31	116	36	100	6.20	5.30	5.10	6.40	5.75	17	12	3	6	2.27	
14	39	4	9	4	7	24	58	39	125	4.79	4.82	4.93	5.17	4.93	14	15	5	9	3.08	
22	46	8	19	13	26	7	13	42	126	4.65	4.82	4.83	4.72	4.75	13	16	6	9	3.80	
6	19	29	84	2	6	43	191	27	86	....	....	....	....	....	14	15	3	7	1.10	
5	5	32	85	32	74	9	18	13	29	2.72	3.26	3.61	4.90	3.62	11	18	2	6	1.33	
10	23	27	69	27	67	31	91	1	1	3.58	4.10	3.41	4.44	3.88	11	18	6	10	2.79	
22	29	0	0	60	71	0	0	41	125	6.03	7.03	6.10	4.51	5.92	13	16	5	6	2.14	
28	89	11	46	21	71	11	51	39	168	2.24	3.03	4.00	3.65	3.23	11	18	3	6	1.71	
6	12	11	28	30	118	18	58	5	13	3.41	3.13	3.10	4.06	3.42	11	18	7	7	3.34	
6	12	7	20	9	17	38	113	26	29	6.72	6.73	7.44	6.00	6.72	14	15	5	6	2.23	
5	16	11	26	23	68	21	64	32	102	1.81	3.25	3.92	4.75	3.43	13	16	6	7	2.48	
2	3	2	6	8	22	8	24	45	119	3.68	4.27	4.89	5.24	4.52	16	13	5	8	3.60	
16	52	13	39	15	53	8	24	28	127	3.19	3.27	3.00	3.82	3.32	10	19	6	4	3.23	
7	13	3	6	32	72	2	5	24	49	3.13	3.58	3.55	4.79	3.76	8	29	8	2	1.18	
4	13	11	36	34	99	13	42	18	51	6.13	5.96	6.65	6.24	6.24	16	13	7	0	1.21	
2	4	3	6	4	12	33	104	12	34	4.32	6.00	5.68	7.12	5.78	19	6	5	0	0.59	First 25 days.
4	10	14	37	14	32	39	69	9	20	4.03	4.48	5.62	6.65	5.20	18	11	4	0	....	
8	26	13	36	6	17	1	1	7	31	5.89	6.85	6.79	7.89	6.85	23	6	1	0	3.67	
11	20	21	44	6	16	21	53	5	9	5.90	7.10	7.10	7.80	6.98	25	4	1	0	1.00	
4	7	10	24	21	41	40	68	14	22	4.10	5.79	6.79	8.17	6.21	25	4	1	0	0.85	
9	9	12	15	14	16	20	24	19	24	1.31	5.37	7.58	7.00	5.31	20	9	1	0	0.27	
6	12	1	1	17	39	3	5	23	48	4.19	4.56	4.80	5.19	4.68	13	8	2	0	3.40	First 21 days.
10	24	12	26	29	68	7	16	26	66	4.17	5.55	4.65	6.89	5.31	19	10	4	0	1.95	
20	52	1	2	12	23	25	74	22	48	2.89	3.00	3.06	4.27	3.31	10	19	2	0	1.45	
6	8	29	53	10	25	10	12	6	12	3.37	4.13	5.27	6.65	4.86	14	15	5	0	6.73?	
5	12	10	17	9	25	31	41	5	10	4.20	4.03	5.03	5.27	4.63	13	16	8	0	4.80	
13	32	6	15	10	17	3	4	17	22	3.65	4.10	3.52	4.83	4.02	13	16	7	0	5.67	Therm. protected.
6	14	7	20	22	62	4	8	15	52	4.24	4.72	4.75	5.03	4.68	15	14	2	1	0.11	
9	16	3	4	9	23	27	128	12	51	4.55	5.55	5.34	4.89	5.08	19	10	4	1	1.73	
3	4	8	13	3	4	34	95	9	33	8.34	8.03	7.55	1.55	6.37	16	13	3	1	1.48	
2	7	4	8	11	36	14	44	23	72	4.50	4.70	4.80	4.10	4.52	14	15	4	2	....	
11	26	6	8	44	92	21	57	22	69	4.10	4.20	3.65	5.13	4.27	14	15	3	7	1.36	
4	9	9	19	2	4	15	57	5	12	....	....	....	....	....	10	19	1	14	0.25?	Weather inaccurate.
12	39	13	28	18	59	30	161	7	14	1.80	2.69	2.00	1.90	2.10	6	23	0	9	0.60?	Inaccurate.
0	0	17	39	30	61	5	6	9	22	3.86	4.20	4.06	4.34	4.12	11	18	1	9	0.66	
8	19	40	60	14	35	24	73	10	25	5.72	5.48	5.58	6.48	5.81	17	12	1	9	0.42	
13	25	8	14	32	74	15	35	25	38	7.93	6.37	6.44	7.00	6.94	19	10	1	4	0.14	
6	17	2	2	20	50	11	32	51	138	4.60	4.72	3.90	5.30	4.63	14	15	0	6	0.58	
10	13	19	30	10	19	0	0	27	56	4.48	4.72	4.44	4.34	4.49	13	16	4	4	0.28	
17	30	11	34	0	0	8	25	6	16	4.27	3.75	3.96	4.86	4.21	14	15	1	8	0.25	
0	0	0	0	3	12	2	10	38	143	4.86	4.68	4.50	6.06	5.03	18	11	0	7	1.10?	

MONTH OF FEBRUARY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Atkinson.........	28.96	37.37	48.96	32.89	37.04	65	2	28.0	35.0	20	81	7	21	27	59
Fort Arbuckle.........	40.68	44.93	55.65	47.00	47.07	77	23	29.9	24.1	15	21	16	24	8	12
Fort Belknap..........	40.62	49.82	60.20	46.44	49.77	78	24	28.2	25.8	33	95	16	32	0	0
Phantom Hill..........	42.75	50.79	61.51	49.37	51.10	75	28	23.9	23.1	19	40	20	37	18	22
Fort Worth	42.76	52.41	61.00	49.51	51.42	76	29	24.6	22.4	12	25	10	17	6	12
Fort Graham..........	48.78	52.79	63.75	54.75	55.02	80	36	25.0	19.0	7	19	16	25	0	0
Fort Croghan..........	44.55	53.89	68.48	53.20	55.03	82	30	27.0	25.0	3	6	8	17	1	1
Austin.................	50.41	58.51	69.68	55.82	58.60	84	37	25.4	21.6	9	26	7	27	18	40
San Antonio...........	56.00	60.79	69.24	62.72	62.19	84	40	21.8	22.2	5	7	19	24	26	29
Fort Martin Scott......	49.24	56.86	65.90	56.79	57.20	75	29	17.8	28.2	2	5	19	21	3	3
Fort Brown	65.83	72.65	75.96	64.62	69.77	90	49	20.2	20.8	0	0	9	20	32	89
Ringgold Barracks.....	63.86	68.72	77.13	69.65	69.84	91	48	21.2	21.8	3	11	10	28	9	24
Fort McIntosh.........	59.28	67.03	78.55	66.03	67.72	97	40	29.3	27.7	5	10	6	8	18	26
Fort Duncan..........	54.00	60.93	74.93	62.27	63.03	91	36	28.0	27.0	12	21	8	10	32	49
Fort Inge.............	52.24	58.55	73.31	57.20	60.32	88	33	24.7	27.3	10	17	23	44	36	79
Fort Lincoln...........	52.75	60.13	73.37	59.82	61.52	87	33	25.5	28.5	23	25	9	10	8	12
Fort Fillmore..........	32.28	56.46	70.39	39.78	49.73	76	21	26.3	28.7	4	4	8	14	26	47
Fort Webster..........	30.89	43.69	50.13	36.55	40.31	60	20	19.7	20.3	8	11	21	32	13	22
Fort Conrad...........	29.03	47.61	61.51	42.27	45.11	69	18	23.9	27.1	30	88	1	1	0	0
Laguna.................	41.70	44.59	50.30	48.35	46.24	59	36	12.8	10.2	1	2	6	6	7	11
Fort Union............	29.93	39.44	41.93	32.44	35.94	49	21	13.1	14.9	7	18	9	16	9	25
San Diego.............	50.10	56.58	62.86	53.48	55.76	71	40	15.2	15.8	8	10	7	8	29	34
Rancho del Chino......	50.11	57.93	64.72	54.55	56.82	78	39	21.2	17.8	0	0	1	2	0	0
Monterey..............	49.89	56.75	58.89	53.00	54.63	74	42	19.4	12.6	7	24	3	4	0	0
Benicia	45.96	51.27	61.07	51.43	52.43	67	39	14.6	13.4	0	0	0	0	23	57
Fort Miller............	48.13	55.65	66.65	52.51	55.74	74	36	18.3	19.7	8	9	11	13	19	25
Camp Far West	41.68	51.48	63.62	48.96	51.44	71	34	19.6	17.4	1	1	0	0	1	1
Columbia Barracks	36.79	39.51	51.83	40.64	42.19	61	29	18.8	13.2	5	9	4	10	8	21
Fort Steilacoom........	38.06	42.75	49.37	40.20	42.60	58	29	15.4	13.6	0	0	14	36	9	13

MONTH OF FEBRUARY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
10	17	7	20	5	11	8	16	27	64	5.06	6.06	5.37	6.48	5.74	18	11	1	4	....	
10	17	15	45	13	25	12	18	2	11	6.51	6.68	6.75	7.20	6.78	19	10	7	0	4.21	
11	21	23	56	12	48	1	2	13	33	3.93	4.58	5.55	5.13	4.80	16	13	6	0	....	
1	1	23	42	15	39	4	10	0	0	5.06	5.81	6.34	6.13	5.84	17	12	4	0	....	
12	41	11	29	15	42	12	24	10	20	4.27	3.65	4.65	5.65	4.55	13	16	9	0	3.75	
13	24	1	4	55	128	5	6	18	33	1.55	3.82	3.82	4.55	3.44	15	14	9	0	5.25	
10	23	1	2	34	106	9	29	31	78	2.82	4.93	6.34	6.72	5.20	18	11	5	0	6.00	
10	28	6	29	12	32	10	23	20	66	2.00	2.86	3.41	5.24	3.38	12	17	5	0	2.73	
26	31	26	29	9	10	2	2	1	6	....	....	....	....	....	15	14	6	0	4.30	
16	27	11	14	12	20	0	0	13	19	5.10	4.41	4.97	6.60	5.27	14	15	7	0	3.10	
49	119	14	36	7	27	0	0	3	7	7.52	7.34	6.58	7.48	7.23	24	5	6	0	0.60	
54	182	23	63	1	3	0	0	9	32	4.48	5.41	5.82	7.10	5.72	23	6	6	0	0.88	
46	101	1	1	3	4	1	1	20	31	2.38	3.10	5.17	5.41	4.02	13	16	7	0	1.05	
27	39	7	12	3	3	3	3	10	19	5.06	4.75	6.82	7.44	6.02	19	10	4	0	2.30	
2	5	2	5	0	0	2	6	0	0	2.86	2.87	3.86	5.31	3.72	11	18	6	0	1.40	
18	24	31	36	3	8	6	10	11	26	2.93	3.00	4.13	3.58	3.41	10	19	10	0	2.96	
24	33	5	5	15	17	14	30	10	25	7.07	7.21	7.10	7.68	7.26	23	6	5	1	0.29	
2	4	3	6	21	45	19	36	11	22	7.55	8.41	7.58	7.41	7.74	22	7	4	4	1.51	
1	1	30	89	1	1	34	77	0	0	6.21	6.13	5.16	6.90	6.10	20	9	2	0	0.03	
0	0	0	0	0	0	24	64	21	52	3.94	4.41	4.35	4.65	4.34	9	8	4	0	0.30	First 17 days. Therm. protected
3	7	11	27	16	46	17	53	10	25	6.72	8.82	9.17	4.13	7.21	18	11	2	2	0.59	
7	9	17	33	19	34	22	32	2	3	2.72	3.27	4.62	4.24	3.71	10	19	14	0	1.84	
21	50	0	0	90	169	3	5	1	2	3.68	4.06	5.03	5.10	4.47	16	13	9	0	....	
3	3	2	3	25	29	25	33	11	21	4.31	6.17	7.44	6.06	6.00	20	9	3	0	0.30	
2	5	5	11	19	65	58	166	1	1	4.03	4.55	6.31	7.24	5.53	16	13	1	0	0.00	
0	0	2	3	8	14	9	13	4	7	6.48	7.58	7.93	8.37	7.59	22	7	4	0	0.61	
10	15	0	0	3	4	1	1	14	22	7.38	7.44	7.20	7.79	7.45	24	5	3	0	0.13	
35	73	2	4	16	34	4	11	35	81	3.45	3.62	5.96	5.36	4.60	16	13	11	0	4.77	
35	53	0	0	31	106	9	23	16	30	0.41	1.34	2.93	5.03	2.43	5	24	13	3	5.43	

MONTH OF MARCH, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	25.09	30.74	35.51	30.19	30.38	48	6	17.6	24.4	4	10	13	46	11	32
Fort Preble	24.16	30.09	35.29	28.09	29.41	49	3	19.6	26.4	27	83	18	77	3	12
Fort Constitution	25.67	31.41	37.93	29.83	31.21	55	4	23.8	27.2	19	40	9	43	17	70
Fort Independence	29.22	33.61	42.81	26.26	32.98	54	9	21.0	24.0	0	0	21	95	0	0
Fort Adams	32.06	34.03	38.77	36.20	35.26	52	11	16.7	24.3	31	133	14	57	20	82
Fort Trumbull	32.40	36.20	39.70	35.30	35.90	53	15	17.1	20.9	2	6	23	80	1	1
Fort Hamilton	35.50	39.30	46.50	39.50	40.20	66	20	25.8	20.2	22	38	9	26	27	51
Fort Columbus	33.12	36.93	40.58	36.25	36.72	55	24	18.3	12.7	12	33	19	63	7	20
West Point	28.36	33.90	36.61	34.58	33.36	59	7	25.6	26.4	19	63	2	7	0	0
Watervliet Arsenal	26.61	34.58	37.41	31.93	32.63	56	—2	23.4	34.6	0	0	2	5	0	0
Plattsburg Barracks	21.93	27.97	33.16	25.81	27.22	46	—7	18.8	34.2	23	48	11	22	2	3
Madison Barracks	22.48	30.67	34.51	26.80	28.79	56	—15	27.2	43.8	6	9	9	11	15	40
Fort Ontario	26.19	32.83	34.64	29.03	30.67	52	5	21.3	25.7	0	0	20	38	0	0
Fort Niagara	26.90	31.19	34.42	29.77	30.57	53	13	22.4	17.6	1	4	7	28	14	58
Alleghany Arsenal	35.09	39.64	46.35	39.74	40.20	74	14	33.8	26.2	13	17	15	26	15	30
Carlisle Barracks	31.42	36.81	42.87	37.26	37.09	69	18	31.9	19.1	2	7	3	10	46	12
Fort Mifflin	34.58	40.45	49.16	38.90	40.77	73	21	32.2	19.8	12	34	27	92	9	19
Fort McHenry	36.22	44.35	50.29	40.93	42.95	70	22	27.1	20.9	14	27	25	57	4	7
Fort Washington	38.12	45.64	53.58	43.90	45.31	79	23	33.7	22.3	14	62	29	94	4	11
Fort Monroe	45.93	48.19	52.06	49.32	48.87	73	32	24.1	16.9	7	13	34	89	10	18
Fort Moultrie	55.22	60.64	66.00	58.96	60.20	81	35	20.8	25.2	21	89	18	79	7	15
Fort Pierce	63.54	72.58	74.69	68.48	69.82	87	48	17.2	21.8	12	33	6	16	12	35
Key West Barracks	71.03	75.19	77.90	73.45	74.39	83	61	8.6	13.4	20	79	8	32	40	150
Fort Myers	66.35	73.83	82.19	71.83	73.55	90	45	16.5	28.5	15	25	10	20	20	38
Fort Brooke	63.73	68.64	71.22	72.45	70.26	84	48	13.7	22.3	6	15	9	16	21	36
Fort Meade	58.84	70.16	79.77	68.52	69.32	88	40	18.7	29.3	18	25	12	15	7	8
Mount Vernon Arsenal	57.32	63.03	73.29	62.93	64.17	84	34	19.8	30.2	5	7	12	20	3	5
New Orleans Barracks	61.14	66.76	74.82	65.11	66.96	85	39	18.0	28.0	13	39	3	13	18	43
Baton Rouge Barracks	57.96	68.03	74.61	62.90	65.87	84	32	18.1	33.9	12	24	7	11	20	32
Fort Washita	47.48	54.70	63.90	54.74	55.20	92	25	36.8	30.2	17	52	6	20	21	51
Fort Gibson	46.51	52.64	64.12	52.74	54.00	92	24	38.0	30.0	12	34	1	4	1	3
Fort Scott	41.22	47.12	54.64	48.29	47.82	87	19	39.2	28.8	18	56	13	31	6	11
Jefferson Barracks	40.45	47.32	53.35	51.87	48.25	80	18	31.8	30.2	10	31	8	29	9	16
St. Louis Arsenal	40.94	45.09	57.07	44.06	46.79	80	18	33.2	28.8	29	79	10	28	12	19
Newport Barracks	41.32	46.22	51.19	47.74	46.62	74	18	27.4	28.6	7	19	32	63	0	0
Fort Gratiot	26.32	32.61	35.54	29.58	31.01	56	1	25.0	30.0	11	32	16	33	11	27
Fort Mackinac	18.22	26.61	30.22	21.64	24.17	42	—4	17.8	28.2	26	53	3	4	29	86
Fort Brady	14.13	20.00	27.13	10.87	18.03	38	—7	20.0	25.0	5	14	2	5	23	77
Fort Howard	21.74	26.54	33.16	28.16	27.40	57	—5	28.6	32.4	27	69	7	21	19	44
Fort Ripley	14.16	22.45	28.41	19.83	21.21	46	—16	24.8	37.2	22	37	16	33	7	12
Fort Snelling	22.35	26.25	30.61	28.00	26.80	57	—8	31.2	34.8	8	14	9	17	4	9
Fort Dodge	23.51	29.58	38.12	30.19	30.35	64	0	33.7	30.3	17	50	11	25	12	44
Fort Leavenworth	37.16	43.13	51.70	43.58	43.89	85	16	41.1	27.9	6	7	17	27	1	1
Fort Kearney	25.06	34.40	43.75	30.16	33.34	79	7	45.7	26.3	41	152	15	38	12	24
Fort Laramie	25.00	27.87	38.00	29.09	30.00	71	—2	41.0	32.0	18	67	38	128	5	19
Fort Atkinson	32.32	46.64	56.22	38.19	43.34	80	9	36.7	34.3	25	109	5	16	10	28
Fort Arbuckle	45.80	52.21	64.03	53.00	53.76	91	23	37.3	30.7	10	22	10	14	12	22

MONTH OF MARCH, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
5	17	1	4	9	19	28	61	50	129	4.87	4.74	4.39	4.19	4.55	16	15	2	6	2.90	
2	11	4	11	10	31	21	56	30	102	5.70	5.87	5.64	4.64	5.46	17	14	5	9	3.59	
9	23	6	15	8	25	26	62	24	55	3.03	4.29	4.61	3.90	3.70	13	18	3	10	2.26	
33	105	0	0	28	83	0	0	22	70	2.48	3.93	3.95	4.90	4.31	13	18	3	7	1.26?	
5	21	19	60	12	37	6	14	18	71	3.10	3.13	2.70	3.68	3.15	10	21	9	5	5.90	
15	41	0	0	25	59	11	17	46	114	3.20	3.50	2.70	4.40	3.45	10	21	9	4	6.54?	
4	6	3	8	19	68	10	41	25	90	4.10	3.50	3.00	4.30	3.72	12	19	9	2	4.11	
24	62	12	19	11	34	9	23	29	91	5.16	5.12	5.16	4.25	4.92	16	15	8	2	4.43	
10	20	23	49	12	22	8	21	46	119	3.10	2.77	2.61	3.84	3.08	9	22	9	5	2.68	
3	12	38	110	13	41	33	112	30	97	....	....	....	....	....	12	19	6	6	2.06	
1	2	24	57	18	53	7	22	24	48	2.80	3.41	2.76	2.65	2.93	11	20	4	7	2.02	
11	36	23	48	15	42	32	68	4	8	2.58	3.16	2.73	3.03	2.87	9	22	7	12	5.89	
39	61	0	0	39	62	0	0	22	39	5.06	6.41	5.74	3.87	5.27	13	18	9	11	3.66	
34	109	5	23	7	21	11	31	34	152	2.80	2.67	2.61	4.16	3.06	10	21	8	9	4.46	
10	16	9	22	19	84	15	67	5	15	2.38	2.22	2.48	3.70	2.70	11	20	12	4	2.03	
18	37	7	26	0	0	27	75	13	44	5.90	5.75	5.60	5.33	5.64	17	14	9	4	3.96	
4	9	12	33	18	55	7	30	26	73	2.50	3.20	3.34	4.38	3.36	10	21	13	2	4.60	
9	28	8	14	14	44	13	65	19	56	3.22	4.03	4.77	4.32	4.08	15	16	10	2	3.90	
19	57	7	26	14	59	6	19	20	84	2.25	2.77	3.25	4.03	3.07	11	20	9	3	2.88	
12	21	0	0	37	94	3	7	16	35	4.35	3.87	3.64	5.67	4.38	15	16	13	2	1.82	
9	22	15	41	20	51	25	65	8	23	4.90	4.03	5.64	5.74	5.08	16	15	10	1	4.35	
16	46	30	80	5	11	33	63	4	10	4.83	5.09	4.64	6.03	5.15	19	12	10	0	3.05	Rain for last 15 days.
17	62	16	55	3	10	8	25	7	34	5.84	5.51	5.90	6.58	5.98	22	9	10	0	8.74	
13	31	10	28	8	10	25	86	9	28	6.00	6.01	5.96	6.64	6.15	20	11	7	0	11.77	
12	23	7	14	15	33	42	83	11	19	4.51	5.45	5.09	7.03	5.52	20	11	7	0	6.40	
12	13	12	19	5	6	36	65	22	29	2.97	6.03	5.68	6.77	5.36	21	10	9	0	2.08	
28	37	8	16	21	43	11	28	20	48	1.41	3.87	4.22	5.90	3.60	17	14	7	0	1.52	
14	34	24	56	11	15	18	44	19	46	2.51	3.19	2.90	4.64	3.31	12	19	6	0	4.24	
17	28	38	74	16	39	8	15	4	7	2.96	4.41	5.22	6.58	4.79	17	14	8	0	2.19	
11	36	19	72	9	36	24	65	17	48	4.64	4.87	5.16	6.12	5.19	17	14	8	0	5.40	
13	67	14	56	0	0	0	0	2	7	3.80	3.09	4.19	6.06	4.28	15	16	8	0	2.24	
11	28	18	64	16	68	16	46	15	37	4.25	3.51	3.29	5.87	4.23	17	14	8	0	0.98	
13	46	13	25	12	33	43	128	8	22	4.97	5.09	5.13	5.06	5.06	19	12	7	0	7.19	
3	9	24	40	14	30	16	37	12	36	7.82	7.32	6.45	2.36	6.00	18	13	8	0	8.00	
4	7	13	20	27	56	7	12	23	64	2.90	3.50	4.00	5.60	4.00	15	16	9	0	4.13	
15	33	20	28	22	49	8	17	19	55	2.58	3.09	3.38	3.83	3.22	11	20	7	8	4.57	
19	61	2	4	1	2	20	56	19	47	....	....	....	....	....	10	21	8	10	0.50?	
8	29	4	11	24	63	34	111	17	57	....	....	....	....	....	8	23	2	12	5.96	Inaccurate.
9	24	13	27	8	16	22	55	3	7	2.90	3.54	3.35	2.83	3.13	11	20	7	4	3.87	
6	15	23	43	12	26	22	58	9	26	4.32	4.00	3.54	4.77	4.16	14	17	5	8	6.61	
6	9	14	34	31	59	10	21	39	122	7.22	5.16	5.70	5.93	6.00	20	11	6	4	2.04	
10	29	1	2	5	16	15	66	39	166	2.67	3.06	1.45	4.16	2.83	13	18	5	6	1.55	
15	29	14	30	20	59	0	0	49	113	4.03	4.41	4.90	5.16	4.62	18	13	9	1	1.35	
20	58	6	25	1	4	4	12	15	48	2.90	2.64	4.22	5.67	3.86	16	15	4	3	0.28	
5	18	0	0	3	12	1	3	41	162	3.54	4.00	3.90	4.00	3.88	13	18	4	7	15.50?	(1.55? "Snow, 8.60.")
19	54	10	34	13	41	10	29	7	28	4.93	6.12	7.03	5.16	5.81	21	10	1	2	....	
11	23	18	60	21	59	12	19	6	11	8.06	8.35	8.67	7.87	8.24	24	7	5	0	1.21	

MONTH OF MARCH, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Belknap..........	45.41	57.87	69.61	52.16	56.26	94	23	37.7	23.3	24	85	5	15	3	10
Phantom Hill..........	46.83	57.25	69.12	52.80	56.50	93	28	36.5	28.5	31	82	13	32	5	15
Fort Worth...........	48.58	59.41	69.90	56.06	58.49	95	32	36.5	26.5	8	20	14	28	2	4
Fort Graham..........	53.06	58.64	71.80	60.41	58.98	96	36	37.0	23.0	13	26	16	35	0	0
Fort Croghan..........	52.80	62.77	73.03	59.93	62.13	95	34	32.9	28.1	6	28	10	23	1	3
San Antonio...........	60.45	66.22	72.83	65.38	66.22	88	50	21.8	16.2	4	4	22	32	22	24
Fort Martin Scott......	52.64	61.13	72.84	59.90	61.63	96	31	34.4	30.6	9	9	17	24	6	10
Fort Brown............	64.12	75.64	77.77	66.64	71.04	89	45	18.0	26.0	14	36	6	13	13	28
Ringgold Barracks.....	65.58	72.67	82.71	73.06	73.50	98	42	14.5	31.5	19	59	6	20	12	44
Fort McIntosh.........	60.68	71.84	84.71	68.94	71.54	104	36	32.5	35.5	7	14	5	13	3	6
Fort Duncan..........	54.06	65.38	80.74	66.32	66.62	99	34	32.4	32.6	12	41	9	18	41	85
Fort Inge.............	53.80	61.51	75.81	60.67	62.96	92	37	29.0	26.0	17	43	16	35	47	108
Fort Lincoln..........	54.96	64.06	76.58	61.80	64.32	93	30	28.7	34.3	35	57	11	13	9	11
Fort Fillmore..........	31.67	49.96	73.19	38.90	48.43	83	14	34.6	34.4	12	22	14	22	10	14
Fort Webster..........	34.48	48.51	55.51	39.64	44.54	70	18	25.5	26.5	7	9	8	15	18	20
Fort Conrad...........	37.41	55.20	68.36	52.29	53.31	82	24	28.7	29.3	19	49	1	2	1	1
Albuquerque...........	......	......	......	......	......	....	....	......	......	7	9	16	31	7	11
Fort Union............	29.06	44.83	55.42	34.22	40.88	79	23	38.1	17.9	23	79	3	9	1	1
San Diego.............	47.54	57.32	63.96	51.45	55.07	78	39	22.9	16.1	8	9	13	14	25	28
Rancho del Chino......	47.58	58.41	65.51	54.80	56.57	83	36	26.4	20.5	0	0	0	0	0	0
Monterey..............	40.77	54.96	58.06	52.32	53.53	86	36	32.5	17.8	15	30	8	8	0	0
Benicia...............	45.67	53.35	60.51	50.12	52.16	80	36	27.9	16.1	0	0	4	10	7	17
Fort Miller............	46.35	57.16	66.80	51.16	55.37	85	29	29.6	26.4	11	16	12	19	18	23
Camp Far West.......	44.32	53.03	61.51	49.38	52.06	80	31	28.0	21.0	8	16	1	1	0	0
Columbia Barracks.....	34.48	38.71	50.46	38.98	40.66	80	21	40.3	19.7	4	8	9	20	16	54
Fort Steilacoom.......	32.93	41.83	47.45	38.51	40.18	69	19	28.8	21.2	2	4	15	41	13	24

MONTH OF MARCH, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
21	69	32	83	4	16	5	12	11	29	5.70	6.12	7.35	8.00	6.79	25	6	1	0	....	
5	10	34	110	16	51	10	23	5	8	3.45	5.54	4.16	6.25	4.85	22	9	3	0	....	
27	98	22	54	6	18	12	30	6	17	5.74	8.67	4.80	7.77	6.00	19	12	6	1	5.20	
0	0	18	51	55	157	6	10	7	18	1.67	4.54	6.03	6.32	4.64	17	14	9	1	8.75	
26	79	13	31	21	53	15	43	24	55	4.38	5.41	6.25	6.29	5.56	20	11	11	1	9:18	
26	32	17	17	22	34	3	5	3	7	....	....	....	....	....	21	10	8	0	6.00	Therm. protected.
16	26	38	59	12	20	3	3	1	1	4.35	4.61	4.64	4.52	4.53	16	15	9	0	12.40	
60	175	27	87	3	8	0	0	2	5	6.35	5.75	5.22	5.83	5.79	20	11	3	0	0.35	
58	188	15	41	3	6	0	0	1	5	2.90	4.51	5.83	6.64	4.97	19	12	1	0	0.65	
28	72	2	4	0	0	0	0	6	14	2.94	3.52	5.68	6.06	4.55	16	15	4	0	1.41	
52	76	3	4	2	2	2	2	11	33	5.35	5.32	7.12	6.54	6.08	19	12	7	0	6.27	
6	14	0	0	0	0	0	0	2	3	2.54	3.48	4.38	5.74	4.03	14	17	9	0	2.62	
7	9	30	44	21	23	7	9	3	5	2.29	3.54	4.74	3.58	3.54	14	17	9	0	4.90	
30	54	12	15	21	35	7	16	14	55	7.80	8.60	7.90	9.00	8.32	27	4	2	0	0.04	
1	1	4	6	27	70	53	161	3	6	9.47	9.61	9.00	9.61	9.42	28	3	0	2	0.13	
0	0	35	121	2	10	51	147	1	2	7.23	7.26	6.28	8.10	7.22	28	3	1	0	0.00	
6	8	7	16	20	74	18	58	13	45	6.64	6.32	5.68	7.22	6.46	24	7	..	..	....	
0	0	1	4	3	5	22	56	36	138	7.87	8.67	9.38	4.74	7.44	25	6	0	1	0.00	
6	8	3	3	16	28	36	78	4	5	5.29	5.12	6.03	5.87	5.58	19	12	7	0	1.87	
1	2	11	22	68	130	40	76	0	0	4.93	5.38	5.48	6.09	5.47	18	13	5	0	....	
0	0	0	0	17	36	11	15	21	31	4.45	4.06	5.22	5.03	4.69	15	16	12	0	6.12	
0	0	15	40	42	139	43	142	1	2	3.96	4.74	4.90	5.96	4.89	15	16	14	0	4.78	
7	13	5	10	5	11	9	20	8	22	7.16	7.19	6.87	6.93	7.04	23	8	13	0	15.59	
46	90	6	11	8	12	4	4	3	3	4.74	4.58	4.93	5.96	5.05	15	16	15	0	10.05	
31	87	11	32	16	39	4	9	27	60	3.38	3.96	5.48	5.38	4.55	16	15	10	8	4.26	
47	92	1	2	23	95	6	21	14	52	1.54	2.58	3.09	4.38	2.90	10	21	11	6	5.12	

MONTH OF APRIL, 1851.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	34.30	41.00	45.90	39.80	40.25	63	25	22.8	15.2	4	13	39	138	10	26
Fort Preble	33.73	40.43	44.26	38.00	39.10	56	22	17.9	17.1	17	62	23	122	7	24
Fort Constitution	33.36	41.03	45.66	35.93	39.00	60	24	21.0	15.0	18	57	6	15	29	124
Fort Independence	35.93	40.76	48.13	40.23	41.26	63	27	21.7	14.3	0	0	14	67	0	0
Fort Adams	38.83	41.70	46.23	41.83	42.15	57	28	14.9	14.1	8	44	10	59	21	88
Fort Trumbull	39.73	44.26	47.10	41.40	43.12	60	31	16.9	12.1	0	0	19	92	6	30
Fort Hamilton	41.40	45.90	51.90	45.60	46.20	60	32	13.8	14.2	22	65	15	49	7	14
Fort Columbus	38.66	43.26	49.93	43.06	43.73	60	29	16.3	14.7	9	21	23	116	9	26
West Point	37.00	42.43	48.57	41.97	42.49	64	23	21.5	19.5	25	60	8	29	1	2
Watervliet Arsenal	38.16	44.53	52.26	42.73	44.42	67	22	22.6	22.4	5	10	11	40	3	8
Plattsburg Barracks	33.03	39.00	43.96	38.63	38.66	53	21	14.3	17.7	30	62	14	50	11	18
Madison Barracks	33.13	40.26	46.03	36.80	39.05	58	20	19.0	19.0	7	26	39	96	4	9
Fort Ontario	33.23	40.20	41.66	34.90	37.49	51	24	13.5	13.5	1	1	35	56	0	0
Fort Niagara	33.63	38.66	43.16	38.66	38.53	54	25	15.5	13.5	0	0	12	51	19	90
Alleghany Arsenal	38.10	45.10	51.30	43.36	44.46	68	21	23.5	23.5	9	10	23	49	7	16
Carlisle Barracks	38.06	44.43	50.67	43.83	44.25	70	26	25.3	18.7	1	4	8	26	36	98
Fort Mifflin	36.40	45.93	50.63	43.07	44.00	69	30	25.0	14.0	4	15	21	93	4	10
Fort McHenry	41.53	50.10	54.23	45.93	47.95	65	32	17.1	15.9	12	29	40	101	2	10
Fort Washington	41.66	52.06	59.16	47.70	50.14	79	32	28.9	18.1	11	41	21	65	5	14
Fort Monroe	48.93	52.36	59.23	53.26	53.44	75	38	21.6	18.4	2	7	32	51	7	17
Fort Moultrie	56.06	63.90	69.00	62.53	62.87	79	46	16.1	16.9	5	16	10	35	3	6
Fort Pierce	63.26	73.83	78.53	69.30	71.23	89	49	17.8	22.2	6	18	6	13	11	32
Key West Barracks	73.20	76.60	79.60	74.86	76.06	85	65	8.9	11.1	21	71	6	17	10	24
Fort Myers	70.00	74.10	80.80	72.23	74.28	90	61	15.7	13.3	21	57	3	10	7	17
Fort Brooke	65.83	70.90	76.90	70.20	70.96	83	54	12.0	17.0	4	5	9	11	3	4
Fort Meade	60.47	72.20	80.50	68.37	70.38	92	46	21.6	24.4	9	15	2	2	6	7
Mount Vernon Arsenal	55.73	64.03	73.86	64.06	64.42	83	44	18.6	20.4	6	12	12	26	5	9
New Orleans Barracks	60.70	67.70	74.65	66.05	67.27	82	47	14.7	20.3	24	58	4	7	17	33
Baton Rouge Barracks	54.76	67.66	74.53	61.16	64.53	83	38	18.5	26.5	19	30	13	23	15	22
Fort Washita	48.10	58.70	68.16	57.26	58.05	85	32	27.0	26.0	0	0	5	13	11	32
Fort Smith	50.86	56.76	67.73	60.33	58.92	81	37	22.1	21.9	9	23	4	6	11	22
Fort Gibson	49.66	58.70	69.00	57.83	58.80	82	32	23.2	26.8	24	44	1	1	3	3
Fort Scott	45.03	53.30	62.23	52.56	53.28	82	31	28.7	22.3	15	33	10	20	4	8
Jefferson Barracks	45.33	54.00	59.86	54.06	53.31	88	28	24.7	25.3	16	56	2	8	33	75
St. Louis Arsenal	44.36	53.13	61.13	49.36	52.00	81	31	29.0	21.0	23	50	5	8	8	14
Newport Barracks	45.93	49.60	56.70	51.80	51.01	82	36	31.0	15.0	13	35	13	22	0	0
Fort Gratiot	30.73	39.53	41.05	35.13	36.61	52	16	15.4	20.6	21	40	44	112	4	11
Fort Mackinac	29.40	38.43	42.50	32.60	35.73	61	14	25.3	21.7	22	55	11	28	39	89
Fort Brady	27.10	34.40	43.67	32.93	34.52	60	8	25.5	26.5	16	35	2	4	34	75
Fort Howard	30.83	36.90	43.86	36.16	36.94	56	16	19.1	20.9	52	141	7	12	10	20
Fort Ripley	27.76	38.53	45.50	34.43	36.55	64	7	27.5	29.5	33	94	17	36	18	37
Fort Snelling	32.70	42.20	51.60	45.77	43.07	67	4	23.9	39.1	1	2	19	32	8	16
Fort Dodge	34.73	42.96	49.53	40.15	41.84	70	16	28.2	25.8	3	8	17	42	19	64
Fort Leavenworth	42.66	50.22	57.96	50.20	50.26	82	27	31.7	23.3	5	14	18	38	1	1
Fort Kearney	32.00	45.33	55.85	40.01	43.30	79	13	35.7	30.3	47	174	9	18	6	25
Fort Laramie	34.16	43.36	51.33	42.36	42.80	71	14	28.2	28.8	24	85	21	61	7	27
Fort Atkinson	40.26	52.83	65.33	46.40	51.20	87	22	35.8	29.2	45	208	6	22	8	16

MONTH OF APRIL, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	7	4	7	7	16	11	34	33	70	3.16	3.43	3.30	3.40	3.32	11	19	8	5	4.10	
0	0	2	7	9	31	13	35	43	130	4.66	5.00	5.10	4.00	4.69	15	15	10	5	8.54?	
9	17	7	17	5	9	16	39	29	67	3.16	4.06	4.26	4.30	3.94	14	16	8	6	6.60	
38	129	0	0	22	71	0	0	17	95	2.99	4.86	4.71	5.20	4.44	14	16	6	3	4.00	Inaccurate.
7	27	15	38	11	32	25	67	21	93	3.93	4.06	2.33	3.90	3.56	13	17	7	4	8.67	
17	67	0	0	22	43	2	4	51	150	3.80	4.10	3.70	4.00	3.90	15	15	7	3	7.93	
2	4	4	12	5	18	11	33	48	167	4.60	3.10	2.80	5.20	3.92	13	17	11	3	6.06	
6	14	14	32	12	33	4	12	35	97	3.76	4.00	3.90	4.20	3.96	15	15	12	2	4.74	
9	16	15	28	3	5	6	13	47	123	3.83	3.20	2.33	3.33	3.17	10	20	13	3	4.66	
0	0	22	64	10	19	56	130	16	37	5.00	5.23	4.83	4.36	4.85	15	15	7	5	4.16	
2	4	16	30	5	11	20	50	7	18	....	....	....	....	....	13	17	3	7	3.42	
4	15	3	7	20	44	28	82	3	5	3.60	4.83	5.03	4.06	4.38	14	16	9	3	3.29	
19	34	0	0	26	42	0	0	41	74	6.26	7.06	7.20	5.66	6.54	15	15	4	3	0.68?	
6	22	9	23	9	32	10	35	41	164	3.00	3.36	3.60	3.23	3.30	11	19	9	4	2.87	
2	3	2	4	43	96	10	35	19	48	2.90	2.76	2.43	2.86	2.74	10	20	15	4	9.27	
3	7	4	10	1	1	50	129	15	38	5.11	5.25	5.24	4.29	4.97	17	13	11	4	4.69	
12	25	3	13	12	26	11	25	31	135	3.60	3.77	3.67	3.86	3.73	14	16	10	3	8.20	
6	15	7	16	3	7	16	37	32	108	3.60	4.20	3.90	3.02	3.68	15	15	13	2	7.80	
14	33	8	26	3	9	8	24	36	177	3.46	3.26	3.20	3.93	3.46	13	17	12	2	7.05	
11	25	3	6	31	72	0	0	37	87	4.47	5.17	4.06	5.43	4.78	17	13	14	0	2.72?	
13	37	11	31	26	55	39	101	13	30	7.00	6.73	5.20	7.40	6.58	21	9	9	0	2.96	
3	8	21	48	17	49	52	129	0	0	4.83	4.93	4.43	5.83	5.00	19	11	5	0	4.80	
17	51	24	74	11	19	10	50	16	77	5.30	5.53	5.80	6.23	5.71	21	9	1	0	2.17	
3	7	21	51	9	18	25	71	14	64	5.46	5.70	6.30	6.90	6.09	22	8	4	0	5.70	
11	12	7	9	9	14	31	40	32	66	4.76	4.70	5.30	6.10	5.21	18	12	6	0	3.05	
9	10	11	17	18	33	41	58	9	21	5.63	6.30	6.83	7.43	6.55	25	5	7	0	2.13	
26	47	6	19	14	24	14	30	26	57	4.83	6.03	6.20	5.96	5.76	18	12	10	0	6.24	
16	31	29	59	2	7	10	27	16	35	4.53	4.46	4.43	5.10	4.63	14	16	5	0	5.25	
10	18	16	31	7	22	21	34	18	46	5.63	5.86	6.06	6.46	6.00	18	12	10	0	8.29	
7	25	31	112	6	23	43	113	15	58	6.06	6.33	5.90	7.90	6.55	23	7	6	0	1.62	
6	13	16	33	10	32	28	78	15	48	4.66	7.10	6.93	6.16	6.21	22	8	7	0	....	
18	37	20	67	2	2	8	8	15	22	5.36	5.66	4.03	6.13	5.30	19	11	10	0	2.95	
13	28	23	72	14	51	13	29	17	38	4.63	4.50	4.60	5.90	4.91	18	12	5	2	2.17	
7	19	11	33	7	14	38	119	3	7	5.87	5.43	4.60	6.30	5.55	18	12	6	0	1.39	
5	11	20	36	9	20	31	61	6	13	6.57	7.43	6.63	2.50	5.78	17	13	8	0	2.54	
6	9	3	4	5	6	19	33	44	109	4.83	5.50	5.00	6.13	5.36	17	13	12	0	6.04	
2	3	4	15	15	28	8	9	19	27	3.90	4.33	3.76	3.46	3.86	13	17	8	5	2.34	
8	21	2	5	3	7	8	19	23	48	....	....	....	....	....	..	..	4	3	....	
12	29	9	21	9	18	25	56	11	32	2.30	2.73	3.07	1.47	2.39	11	19	5	3	2.00	
2	5	1	1	9	17	10	28	0	0	4.56	4.26	3.93	4.40	4.29	15	15	5	3	2.97	
14	40	4	9	9	18	11	21	7	11	4.70	4.26	4.66	5.33	4.74	16	14	3	7	2.37	
12	21	11	17	31	59	15	27	14	17	7.76	7.30	7.63	7.50	7.55	18	12	5	2	2.49	
9	45	0	0	2	8	9	17	42	116	3.50	2.76	2.60	4.06	3.23	10	20	12	2	2.16	
11	23	16	51	16	41	1	3	46	116	3.53	4.23	5.10	4.93	4.45	18	12	8	1	5.50	
23	53	9	23	2	6	3	7	11	47	4.23	3.10	3.80	5.16	4.07	16	14	5	2	0.73	
5	16	0	0	5	19	9	28	40	118	4.30	4.46	3.76	3.30	3.96	14	16	6	4	1.25	
12	39	12	53	11	33	18	48	4	14	7.56	7.26	6.80	7.30	7.23	24	6	3	0	....	

MONTH OF APRIL, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Arbuckle	48.20	60.20	71.33	59.36	59.77	91	33	31.2	26.8	9	17	10	20	8	15
Fort Belknap	48.60	63.10	71.17	57.47	60.08	94	34	33.9	26.1	13	38	2	2	0	0
Phantom Hill	50.02	65.06	80.00	59.66	63.68	98	34	34.3	29.7	36	90	8	19	5	10
Fort Worth	50.33	64.56	73.90	57.16	61.49	86	36	24.5	25.5	2	8	5	7	12	38
Fort Graham	54.53	62.06	76.73	63.83	64.29	92	42	27.7	22.3	6	8	0	0	3	11
Fort Croghan	56.10	67.33	78.23	65.03	66.67	91	40	24.3	26.7	1	5	9	29	5	18
San Antonio	67.95	73.10	79.00	71.53	72.90	88	60	15.1	12.9	8	13	18	25	11	12
Fort Mason	57.03	73.63	84.90	74.13	72.42	101	40	28.6	32.4	11	25	2	8	1	2
Fort McKavett	56.20	67.66	80.80	64.00	67.16	92	41	24.8	26.2	13	25	15	16	3	3
Fort Terrett	50.10	66.43	82.23	62.23	65.25	95	35	29.7	30.3	1	3	21	40	11	13
Fort Merrill	61.00	78.30	83.36	67.20	72.46	95	45	22.5	27.5	8	28	10	24	5	9
Fort Brown	66.50	82.00	84.00	70.76	75.81	97	45	21.2	30.8	2	6	14	35	25	54
Ringgold Barracks	65.93	79.26	90.50	75.00	77.67	99	50	21.3	27.7	9	20	12	18	7	16
Fort McIntosh	63.60	80.37	91.37	75.00	77.58	104	47	26.4	30.6	8	14	20	31	8	14
Fort Duncan	57.93	75.70	90.70	73.36	74.42	102	40	27.6	34.4	15	50	16	33	47	137
Fort Inge	56.26	68.73	83.43	66.93	68.84	94	38	25.2	30.8	13	28	16	28	39	93
Fort Lincoln	59.80	68.63	82.18	66.30	69.23	93	42	23.8	27.2	7	11	11	13	16	27
Fort Fillmore	41.93	58.10	78.26	47.83	56.53	86	26	29.5	30.5	7	21	12	19	10	22
Fort Webster	38.73	53.06	61.00	43.27	49.02	80	28	31.0	21.0	14	27	3	4	8	10
Fort Conrad	40.10	60.46	73.47	57.17	58.05	86	31	28.0	27.0	19	58	1	2	1	2
Albuquerque	......	......	......	......	......	....	....	......	......	5	7	7	10	4	10
Fort Union	31.13	60.30	70.63	39.30	50.34	84	20	33.7	30.3	19	61	12	37	12	43
San Diego	51.50	58.13	66.20	55.13	57.74	82	40	24.3	17.7	3	5	9	12	14	16
Rancho del Chino	53.03	60.53	69.63	59.80	60.75	89	45	28.3	15.7	0	0	0	0	0	0
Monterey	48.33	56.83	58.73	51.60	53.87	74	38	20.1	15.9	8	12	4	5	3	4
Benicia	48.36	57.80	67.66	53.76	56.89	86	39	29.1	27.9	0	0	0	0	1	2
Fort Miller	51.23	64.43	79.83	58.33	63.45	101	38	37.5	25.5	6	10	4	9	25	30
Fort Reading	47.07	61.03	71.60	54.96	58.66	89	36	30.3	22.7	2	2	1	1	2	2
Columbia Barracks	42.16	48.83	55.55	45.76	48.08	68	31	19.9	17.1	8	16	6	16	7	21
Fort Steilacoom	39.70	48.53	53.30	44.43	46.49	62	26	15.5	20.5	1	3	2	4	1	1

MONTH OF APRIL, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
20	45	21	74	12	28	9	17	14	34	9.13	8.96	8.66	9.73	9.12	27	3	5	0	1.41	
17	65	35	84	14	32	12	27	15	31	7.53	7.93	8.60	9.47	8.38	28	2	4	0	....	
6	14	42	134	3	14	15	38	1	1	7.13	7.40	7.90	7.93	7.59	26	4	3	0	....	
26	101	18	61	12	29	20	61	6	27	6.86	6.63	7.76	7.96	7.30	22	8	5	0	1.73	
23	60	10	20	47	123	3	8	25	56	1.83	5.70	6.96	7.40	5.47	20	10	5	0	4.00	
34	123	14	49	5	22	16	47	21	81	4.43	5.90	6.40	6.96	5.92	20	10	5	0	2.79	
46	75	31	35	3	3	0	0	0	0	....	....	....	....	....	22	8	4	0	0.70	Therm. protected. Inaccurate.
8	36	9	28	32	155	3	10	20	77	6.20	7.30	8.53	8.63	7.67	24	6	4	0	1.90	Temp. in excess at 3 [p. m.
4	7	22	48	35	52	18	29	10	20	9.00	9.23	9.63	9.56	9.35	28	2	4	0	0.59	
28	61	3	8	21	46	26	47	4	9	6.26	7.36	8.43	5.80	6.96	27	3	4	0	1.08	
37	97	24	75	10	25	3	4	8	26	8.60	7.23	8.03	7.93	7.95	27	3	3	0	....	
28	68	44	104	5	14	0	0	0	0	5.73	5.66	5.67	6.83	5.97	20	10	2*	0	0.00	
62	157	11	28	2	4	0	0	10	28	6.03	5.73	5.76	7.53	6.26	24	6	3	0	0.68	
56	122	5	8	3	4	1	1	13	22	4.80	6.37	6.38	7.07	6.15	22	8	2*	0	0.00	
23	80	1	1	4	9	0	0	10	36	7.06	7.66	9.20	9.16	8.27	26	4	2*	0	0.00	
5	14	2	4	1	4	5	17	1	3	3.86	4.13	7.00	7.23	5.55	21	9	2	0	0.15	
18	19	11	14	36	41	13	36	1	1	3.50	3.83	5.83	5.13	4.57	17	13	3	0	0.23	
6	17	14	20	9	19	33	60	27	71	7.37	7.86	8.20	8.30	7.93	26	4	4	0	0.20	
9	10	5	6	9	16	62	133	1	1	8.96	8.70	8.40	9.10	8.79	27	3	3	2	4.45	
1	1	25	78	1	2	47	136	0	0	7.19	7.12	6.24	8.05	7.15	27	3	2	1†	0.07	
2	4	23	35	27	85	6	11	7	13	8.20	7.33	6.73	8.47	7.68	27	3	3	1	0.70	
3	11	4	9	4	13	9	24	16	44	8.26	8.66	9.00	4.00	7.48	24	6	2	1	0.24	Temp. inaccurate. ‡
10	13	20	27	24	28	30	56	7	10	2.23	2.36	5.36	3.23	3.30	10	20	7	0	0.85	
3	7	37	63	74	126	15	24	0	0	3.33	3.93	5.40	6.00	4.66	16	14	..	..	....	
1	2	1	1	0	0	10	13	32	55	4.16	5.73	6.93	7.00	5.95	21	9	4	0	0.92	
0	0	0	0	22	60	91	264	1	3	5.60	6.20	6.16	7.10	6.26	20	10	4	0	0.03	
2	4	6	8	5	10	8	17	7	18	7.56	7.66	8.46	8.73	8.10	24	6	6	0	2.59	
23	43	22	34	9	9	5	5	7	9	5.36	6.00	6.36	7.50	6.30	20	10	7	0	2.87	
40	122	12	38	17	52	3	10	22	55	4.03	4.80	4.73	4.74	4.57	10	20	21	0	6.56	
20	50	9	30	58	231	10	34	20	68	2.20	2.33	2.34	2.93	2.45	6	24	21	0	3.34	

* Days on which slight rain fell, the quantity "inappreciable."

† On mountains near the post.

‡ The faulty exposure of the thermometer which has characterized the record at this post and *Las Vegas* from the commencement of the observations is corrected at the close of May of this year. Previously the morning and evening temperatures are too low, and those of midday too high. The mean for the month is a near approximation, however.

MONTH OF MAY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	43.22	49.06	57.22	48.55	49.51	78	33	29.5	16.5	1	1	12	44	2	6
Fort Preble	46.09	52.35	59.19	50.22	51.96	80	35	28.0	17.0	21	62	11	36	1	2
Fort Constitution	47.16	56.38	62.96	49.41	53.95	82	36	28.1	17.9	13	34	15	47	12	45
Fort Independence	49.29	56.00	66.60	54.74	56.51	81	37	24.5	19.5	0	0	27	121	0	0
Fort Adams	50.52	55.45	60.58	54.03	55.15	68	40	12.9	15.1	22	79	11	56	13	41
Fort Trumbull	54.06	59.07	63.38	54.03	57.63	79	44	21.4	13.6	2	5	32	128	0	0
Fort Hamilton	53.90	59.50	63.80	56.10	58.32	80	45	21.7	13.3	15	36	9	17	26	49
Fort Columbus	54.80	60.25	66.06	60.09	69.30	72	47	11.7	13.3	22	40	15	36	7	13
West Point	51.58	58.71	65.71	57.58	58.40	80	40	21.6	18.4	21	61	3	6	0	0
Watervliet Arsenal	51.93	61.58	71.64	57.61	60.69	84	38	23.3	22.7	9	26	4	10	1	3
Fort Ontario	46.30	54.63	61.66	50.46	53.26	89	36	35.7	17.3	0	0	23	33	0	0
Fort Niagara	46.42	55.26	60.26	50.77	53.18	84	35	30.8	18.2	0	0	30	100	0	0
Alleghany Arsenal	50.16	60.45	70.87	57.80	59.82	84	36	24.2	23.8	28	41	7	10	8	10
Carlisle Barracks	50.55	61.84	73.61	60.90	61.73	89	36	27.3	25.7	2	5	8	19	26	57
Fort Mifflin	52.19	64.64	75.22	61.32	63.34	88	40	24.7	23.3	1	1	11	26	14	28
Fort McHenry	54.93	62.58	74.16	61.06	63.18	83	42	19.8	21.2	13	29	15	40	2	4
Fort Washington	56.80	69.67	79.19	63.54	67.30	94	42	26.7	25.3	7	27	20	51	5	17
Fort Monroe	61.25	65.08	71.05	66.00	65.85	88	45	22.2	20.8	3	6	28	67	10	21
Fort Moultrie	67.74	77.22	78.12	72.12	73.80	85	49	11.2	24.8	8	22	18	82	8	16
Fort Pierce	72.16	84.48	83.90	74.19	78.68	98	64	19.3	14.7	9	19	11	48	21	69
Key West Barracks	76.22	80.77	84.32	79.81	80.28	91	73	10.7	7.3	11	42	29	105	25	68
Fort Myers	75.77	82.54	89.93	79.58	81.95	94	68	12.1	13.9	9	14	10	24	26	94
Fort Brooke	72.75	77.83	84.19	25.87	77.66	91	67	23.3	10.7	2	2	15	31	32	68
Fort Meade	68.39	80.39	87.84	75.23	77.96	94	62	16.0	16.0	18	24	9	16	13	17
Mount Vernon Arsenal	69.00	76.74	84.68	75.29	76.43	93	60	16.6	16.4	6	11	11	26	13	22
East Pascagoula	73.84	79.82	82.60	76.20	78.11	88	64	9.9	14.1	2	4	8	17	9	24
Baton Rouge Barracks	66.83	77.58	81.90	71.38	74.42	88	58	13.6	16.4	13	23	12	19	39	59
Fort Washita	63.35	69.93	75.96	68.77	69.50	86	47	16.5	22.5	10	32	12	29	22	54
Fort Smith	63.67	64.41	76.38	67.19	67.91	87	48	19.1	19.9	19	37	7	12	32	57
Fort Gibson	63.41	71.74	77.12	68.25	70.13	90	46	19.9	24.1	2	9	1	2	4	13
Fort Scott	59.87	69.54	75.41	65.67	67.62	90	40	22.4	27.6	17	25	15	19	14	28
Jefferson Barracks	60.39	67.03	74.77	66.90	67.27	86	40	18.7	27.3	8	31	4	10	67	115
St. Louis Arsenal	60.77	62.87	76.65	63.44	65.93	94	46	28.1	19.9	8	10	1	1	30	54
Newport Barracks	57.45	63.25	71.25	65.54	64.37	80	42	15.6	22.4	10	19	20	39	5	8
Fort Gratiot	42.87	55.96	59.54	50.25	50.89	87	25	36.0	26.0	11	26	35	87	0	0
Fort Brady	43.00	49.16	56.77	46.71	48.91	68	29	19.1	19.9	5	18	0	0	33	106
Fort Howard	45.45	56.54	62.80	54.58	54.84	85	31	30.2	23.8	26	58	11	20	3	8
Fort Ripley	42.38	59.93	68.16	53.38	55.96	78	28	22.1	27.9	21	54	6	13	8	13
Fort Snelling	49.35	57.64	66.77	60.16	58.48	89	33	30.5	25.5	2	4	17	29	9	23
Fort Dodge	53.20	62.25	72.70	59.06	61.80	89	34	27.2	27.8	7	23	8	19	18	66
Fort Leavenworth	58.06	64.87	71.79	64.00	64.68	89	38	24.3	26.7	1	1	17	26	3	3
Fort Kearney	50.61	61.96	70.45	57.35	60.09	89	32	28.9	28.1	15	47	30	78	9	25
Fort Laramie	47.74	58.45	66.06	56.18	57.11	85	34	27.9	23.1	13	41	35	119	6	22
Fort Atkinson	58.51	67.41	75.29	64.32	66.38	92	43	25.6	23.4	31	92	5	6	11	24
Fort Arbuckle	63.38	70.77	78.61	68.22	70.25	90	41	19.8	29.2	4	7	7	8	20	37
Fort Belknap	63.22	69.77	82.90	66.71	71.15	94	48	22.8	23.2	13	14	0	0	1	3
Phantom Hill	65.54	75.70	87.25	70.45	74.74	100	54	25.3	20.7	14	37	0	0	14	24

MONTH OF MAY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	5	12	44	42	102	12	26	26	90	4.70	4.71	5.06	4.43	4.72	16	15	5	0	0.30	
0	0	8	21	44	139	14	44	24	58	5.64	5.96	5.80	5.74	5.79	18	13	13	0	2.82	
6	12	18	50	18	43	22	30	19	59	3.90	4.77	5.67	5.45	4.95	18	13	6	0	1.42	
17	56	0	0	22	68	0	0	35	143	3.93	5.00	6.87	6.80	5.65	19	12	5	0	1.20	
5	14	24	71	16	41	20	43	8	23	3.64	4.39	5.00	5.68	4.68	17	14	5	0	3.92	
17	39	2	4	43	85	2	3	27	61	4.10	5.20	5.21	5.00	4.80	18	13	8	0	3.71	
6	12	12	29	13	36	11	36	29	80	5.80	5.30	5.30	5.60	5.50	18	13	10	0	3.20	
21	50	20	39	8	21	9	19	21	56	5.61	5.90	5.80	5.93	5.81	20	11	9	0	2.24	
15	22	45	67	2	3	1	1	23	42	4.51	4.37	4.84	4.85	4.64	10	20	12	0	1.85	
0	0	49	128	0	0	52	144	7	24	6.48	7.61	6.74	6.35	6.79	19	12	7	0	1.67	
26	33	0	0	54	86	0	0	23	53	7.73	7.86	8.80	7.38	7.94	18	13	4	0	0.86	
10	27	8	23	24	100	18	55	21	66	3.97	4.48	4.54	5.09	4.52	16	15	8	0	2.56	
1	1	10	18	20	67	9	25	6	17	3.32	4.83	6.09	6.03	5.07	17	14	14	0	3.84	
16	34	9	20	7	13	45	105	5	14	7.32	7.32	8.33	7.03	7.50	18	13	11	0	2.96	
21	41	7	10	20	45	12	27	23	64	5.20	5.90	5.10	5.10	5.32	20	11	9	0	5.30	
7	23	12	25	19	51	24	58	11	28	5.80	6.35	6.74	5.09	5.97	21	10	7	0	1.70	
20	53	12	29	24	53	5	14	16	52	4.12	4.19	4.42	5.29	4.51	15	16	12	0	2.29	
15	28	7	11	54	104	0	0	6	14	5.16	5.15	5.26	6.05	5.40	21	10	12	0	1.53	
23	54	12	34	34	71	12	17	8	14	7.06	6.41	6.67	6.83	6.74	23	8	8	0	4.17	
17	51	41	85	6	12	12	18	0	0	6.29	5.29	4.77	5.30	5.41	22	9	3	0	1.30	
37	135	2	7	1	2	0	0	2	7	6.03	6.09	6.39	7.03	6.38	25	6	3	0	0.40	
2	7	7	8	9	17	39	70	6	15	6.58	6.57	5.04	6.90	6.27	23	8	8	0	3.25	
13	22	4	6	8	14	37	52	4	8	6.77	5.87	4.19	7.54	6.06	24	7	6	0	3.06	
10	11	21	22	8	8	35	42	6	8	7.87	7.74	4.90	6.68	6.80	27	4	11	0	2.31	
24	40	5	9	15	20	11	25	11	19	5.38	6.61	5.74	6.80	6.13	23	8	9	0	6.75	
24	61	35	91	16	38	16	30	6	12	2.17	2.03	2.55	4.45	2.80	10	19	7	0	8.85	Last 29 days
8	10	23	36	15	24	10	12	1	2	3.16	3.83	3.93	6.93	4.46	17	14	8	0	6.08	
17	47	38	88	15	37	5	7	1	2	2.41	2.83	3.45	5.16	3.46	12	19	10	0	4.61	
9	23	11	21	5	10	5	11	1	3	2.93	6.93	5.45	4.41	4.93	19	12	14	0	....	
1	3	8	30	0	0	0	0	0	0	4.77	4.45	4.29	5.71	4.81	14	17	13	0	6.72	
15	41	30	62	10	27	12	25	7	11	3.08	4.22	3.54	4.83	3.92	11	20	16	0	10.74	
5	17	7	9	1	1	20	50	8	22	4.55	5.68	5.26	6.16	5.41	17	14	15	0	8.12	
1	1	25	48	11	15	18	33	6	19	6.77	7.00	6.36	2.00	5.53	20	11	13	0	4.44	
3	5	11	21	11	20	20	45	12	32	6.35	6.09	5.61	6.67	6.18	19	12	10	0	2.11	
8	19	26	46	18	46	15	27	8	20	6.54	6.77	6.19	6.96	6.61	15	16	6	0	0.94	Inaccurate.
27	62	19	39	7	22	30	81	3	11	2.25	3.11	2.26	1.11	2.44	14	17	11	1	7.70?	Inaccurate
1	1	42	122	2	4	16	35	6	14	5.74	6.51	5.00	6.54	5.95	19	12	5	2	2.15	
12	30	25	67	19	38	11	23	7	12	6.77	6.48	6.16	7.00	6.60	21	10	10	1	3.96	
29	48	8	13	19	25	21	45	16	37	7.32	7.38	8.45	8.00	7.79	25	6	9	0	4.72	
13	75	4	5	26	80	7	9	15	29	3.80	3.70	3.30	6.25	4.26	14	17	12	0	2.05	
22	43	19	44	22	41	0	0	26	46	4.61	5.74	5.00	4.06	4.85	15	16	11	0	4.71	
30	91	16	30	1	3	3	5	5	14	4.58	4.64	4.41	5.54	4.79	19	12	10	0	5.23	
8	25	0	0	5	9	5	12	33	112	5.74	5.93	4.00	5.67	5.34	20	11	14	0	7.29	
16	27	41	96	12	25	3	14	0	0	5.83	6.74	6.35	6.48	6.35	20	11	8	0	....	
39	100	13	36	6	13	2	6	5	9	7.00	6.29	7.77	8.32	7.34	23	8	13	0	7.30	
24	42	40	73	7	8	12	14	1	2	5.84	6.30	7.48	6.84	6.61	22	9	7	0	....	
5	14	75	197	4	7	6	6	4	10	6.30	6.61	7.12	7.35	6.84	25	6	6	0	....	Temp. in excess.

MONTH OF MAY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Chadbourne	58.55	69.71	80.65	62.32	67.81	92	48	24.2	19.8	5	20	6	20	4	9
Fort Worth	65.84	77.41	82.74	69.16	73.79	92	49	18.2	24.8	7	18	6	14	9	19
Fort Graham	69.09	73.64	83.09	74.06	74.97	90	56	15.0	19.0	0	0	4	4	5	17
Fort Croghan	68.93	75.09	84.10	74.70	75.70	90	56	14.3	19.7	5	11	9	28	5	15
San Antonio	80.12	81.22	84.77	81.41	81.88	88	75	6.1	6.9	1	1	1	1	24	37
Fort Mason	69.45	77.74	92.51	71.00	77.68	98	62	20.3	15.7	0	0	11	36	7	22
Fort McKavett	71.19	76.66	83.85	72.83	76.13	95	50	18.9	26.1	4	11	5	18	1	4
Fort Terrett	66.09	75.90	87.67	73.74	75.85	101	58	25.2	17.8	1	2	15	22	28	36
Fort Merrill	71.41	83.74	89.51	74.03	79.67	94	67	14.3	12.7	0	0	11	36	2	4
Fort Brown	73.83	85.16	87.38	75.25	80.40	96	67	15.6	13.4	1	4	0	0	9	17
Ringgold Barracks	76.29	83.22	94.51	79.61	83.41	105	72	21.6	11.4	0	0	1	2	4	10
Fort McIntosh	73.42	84.52	97.58	82.55	84.52	105	68	20.5	16.5	0	0	12	16	18	27
Fort Duncan	71.93	81.67	95.00	82.45	82.76	105	64	22.2	18.8	3	11	9	21	59	171
Fort Inge	68.90	75.67	87.16	76.09	76.95	95	62	18.1	14.9	3	4	12	16	65	159
Fort Lincoln	70.93	76.22	87.41	75.83	77.60	93	63	15.4	14.6	13	17	12	15	0	0
Fort Fillmore	52.06	72.00	84.29	66.35	68.67	97	41	28.3	27.7	13	22	5	8	3	10
Port Webster	46.19	63.32	73.42	45.55	57.12	86	26	28.9	31.9	12	28	0	0	4	5
Fort Conrad	48.22	71.37	79.97	67.03	66.65	90	35	23.4	31.6	24	75	2	5	3	8
Albuquerque	......	......	......	......	......	....	....	......	......	14	26	6	14	8	28
Fort Union	40.32	66.51	74.25	47.12	57.05	85	29	28.0	28.0	18	61	1	4	3	7
Fort Defiance	34.22	57.03	70.16	49.48	52.72	80	24	27.3	28.7	16	57	44	166	22	56
San Diego	54.45	62.83	69.54	58.33	61.29	78	42	16.7	19.3	2	3	8	10	11	13
Rancho del Chino	54.48	63.45	74.80	62.29	63.75	95	44	31.3	19.7	0	0	0	0	0	0
Monterey	52.16	57.32	59.83	52.93	55.56	68	46	12.4	9.6	18	30	4	5	1	1
Benicia	49.25	59.32	70.54	55.51	58.65	84	40	25.4	18.6	0	0	0	0	0	0
Fort Miller	57.67	72.74	91.32	68.60	72.33	113	41	40.7	31.3	6	10	7	12	21	25
Columbia Barracks	47.83	57.85	74.23	59.30	59.81	98	39	38.2	20.8	17	24	6	10	5	8
Fort Steilacoom	46.61	58.16	69.45	54.19	57.10	90	38	32.9	19.1	0	0	9	26	5	5

MONTH OF MAY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
37	83	14	28	33	73	8	20	9	19	2.39	3.77	4.94	6.55	4.41	16	15	8	0	6.25	
34	98	18	53	7	19	9	16	6	14	3.64	3.25	4.06	5.70	4.16	15	16	10	0	4.27	
19	43	78	112	16	29	1	4	1	2	3.12	3.15	3.45	4.06	3.44	11	20	5	0	2.65	
78	290	9	29	6	17	1	3	5	9	1.45	2.87	3.64	4.20	3.04	9	22	6	0	2.21	[inaccurate.
69	148	17	24	4	4	0	0	0	0	4.00	5.03	5.61	6.38	5.25	14	17	4	0	2.66	Temp. and clearness
13	34	24	70	29	95	0	0	0	0	5.16	6.67	6.87	7.22	6.45	19	12	10	0	8.94	Temp. excessive?
26	38	37	116	42	101	2	4	7	18	5.77	5.61	5.51	5.29	5.54	18	13	7	0	4.75	
75	145	4	7	1	1	3	5	0	0	3.41	5.32	5.83	3.51	4.27	17	14	8	0	5.15	
55	179	40	138	2	3	2	4	1	3	4.83	6.54	6.41	4.07	5.46	25	6	3	0	....	
47	117	50	138	8	20	4	8	0	0	4.12	4.90	5.03	4.09	4.53	15	16	3	0	4.05	
96	341	9	19	0	0	0	0	1	1	3.64	5.22	4.45	2.06	3.84	12	19	8	0	2.28	
84	167	3	5	3	4	2	2	5	6	3.32	3.97	4.45	3.87	3.90	13	18	8	0	1.18	
50	233	1	2	0	0	0	0	1	4	5.06	5.22	6.35	6.38	5.75	20	11	9	0	2.13	
20	56	2	4	0	0	0	0	0	0	1.54	1.90	3.32	3.25	3.00	11	20	12	0	5.76	
51	78	43	70	0	0	4	5	0	0	1.16	1.06	2.45	1.25	1.48	5	26	11	0	4.26	
1	2	19	36	17	34	25	38	29	57	7.67	7.80	7.35	7.41	7.56	27	4	3	0	0.40	
4	8	3	3	21	58	69	139	0	0	9.51	9.41	8.77	9.58	9.32	24	7	7	0	1.23	
0	0	24	75	4	22	11	30	5	27	7.22	8.19	7.26	6.35	7.25	24	7	7	0	0.25	
12	33	26	54	18	59	6	18	0	0	7.20	7.05	6.00	6.17	6.60	26	5	4	0	0.07	
3	8	15	48	12	32	13	54	30	89	7.87	8.74	9.00	3.38	7.25	23	8	6	0	0.73	Clearness and temp.
21	61	5	7	3	7	2	3	7	14	8.38	7.29	5.32	5.38	6.59	26	5	7	3	0.89	[inaccurate.
9	10	19	24	33	73	33	65	5	8	1.62	3.83	7.19	4.19	4.22	18	13	3	0	0.32	
1	2	0	0	98	197	23	47	1	2	4.16	4.90	5.96	6.90	5.48	21	10	..	..	....	
0	0	5	7	9	31	28	61	22	40	2.64	3.96	4.77	2.93	3.53	13	18	4	0	0.10	
0	0	0	0	36	129	85	304	0	0	4.87	6.74	7.29	6.61	6.38	21	10	2	0	0.00	
0	0	1	1	7	12	9	19	6	19	8.38	8.77	9.29	8.54	9.74	27	4	5	0	0.60	
21	49	2	2	28	75	4	9	31	83	6.90	6.74	7.79	7.60	7.26	26	5	6	0	3.49	
9	14	1	3	21	52	4	13	69	196	3.67	4.16	5.80	6.38	5.00	17	14	2	0	0.12	

MONTH OF JUNE, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	47.66	57.53	59.16	51.63	54.00	74	42	20.0	12.0	0	0	7	13	1	1
Fort Preble	53.90	65.40	66.90	58.66	63.71	82	43	18.3	20.7	17	39	4	9	4	9
Fort Constitution	56.96	67.13	74.00	58.70	64.20	93	46	28.8	18.2	5	7	2	4	2	6
Fort Independence	57.66	65.53	75.07	64.83	65.22	85	50	19.8	15.2	6	24	0	0	3	14
Fort Adams	59.40	68.30	71.27	63.90	65.72	85	47	19.3	18.7	0	0	13	39	0	0
Fort Trumbull	62.80	68.83	73.20	62.70	66.88	87	53	20.1	13.9	1	5	13	34	0	0
Fort Hamilton	61.80	69.40	76.60	67.00	68.70	98	52	29.3	16.7	2	5	0	0	2	8
Fort Columbus	64.23	69.86	76.40	69.33	69.70	90	56	20.3	13.7	8	23	2	6	3	8
West Point	61.10	69.20	76.33	66.57	68.30	91	47	22.7	21.3	13	32	6	9	0	0
Watervliet Arsenal	62.86	69.40	74.33	68.13	68.68	99	52	30.3	16.7	..	..	..	..	..	..
Fort Ontario	54.86	66.00	69.50	59.46	62.46	84	40	21.5	22.5	0	0	3	5	0	0
Fort Niagara	57.36	66.36	72.80	62.90	63.10	90	44	26.9	19.1	2	9	10	31	0	0
Alleghany Arsenal	54.70	68.26	77.60	64.36	66.23	90	42	23.8	24.2	6	6	9	17	0	0
Carlisle Barracks	56.17	69.53	78.72	68.83	68.31	94	42	25.7	26.3	8	25	1	3	6	11
Fort Mifflin	60.53	70.30	81.13	66.60	69.64	99	43	29.4	26.6	0	0	4	12	4	7
Fort McHenry	64.16	70.23	76.70	69.40	70.12	90	50	19.9	20.1	5	15	4	14	0	0
Fort Washington	62.83	76.03	84.86	69.16	73.22	103	49	29.8	24.2	12	28	9	29	4	7
Fort Monroe	67.40	71.50	79.37	72.67	72.74	90	56	17.3	16.7	2	3	15	37	3	6
Fort Moultrie	71.13	78.50	80.93	75.90	76.61	93	63	16.4	13.6	10	24	19	62	11	31
Fort Pierce	75.80	83.66	84.20	76.56	80.06	94	70	13.9	10.1	8	15	8	25	32	110
Key West Barracks	79.23	83.20	86.56	82.26	82.81	89	76	6.2	6.8	2	6	6	16	21	80
Fort Myers	78.16	82.00	88.23	81.26	82.41	94	73	11.6	9.4	14	21	6	8	14	25
Fort Brooke	75.18	79.60	84.40	78.53	79.43	88	69	8.6	10.4	2	5	11	21	27	45
Fort Meade	71.87	81.40	86.50	75.77	78.88	96	68	17.1	10.9	7	7	6	9	26	30
Fort Barrancas	74.81	82.68	85.06	79.50	80.51	88	62	7.5	18.5	3	4	1	3	0	0
Mount Vernon Arsenal	72.43	79.76	87.83	78.36	79.60	94	65	14.4	14.6	11	22	28	49	16	23
East Pascagoula	75.35	82.15	86.11	79.76	80.84	89	64	8.2	16.2	3	6	7	14	7	15
Baton Rouge Barracks	69.00	81.03	85.56	74.36	77.74	92	57	14.3	20.7	18	28	15	20	27	50
Fort Washita	64.66	75.20	81.93	72.26	73.51	90	56	16.5	17.5	10	26	13	39	10	22
Fort Smith	66.30	72.66	81.00	74.10	72.74	88	54	15.3	18.7	14	31	10	18	35	67
Fort Gibson	66.76	76.73	82.40	71.36	74.31	90	54	15.7	20.3	11	15	3	6	3	4
Fort Scott	64.06	72.26	80.53	69.00	71.46	90	46	18.5	25.5	12	26	15	22	6	8
Jefferson Barracks	64.23	72.56	80.26	70.00	71.76	90	48	18.2	23.8	2	2	2	5	10	20
St. Louis Arsenal	64.66	73.93	83.56	67.47	72.40	96	46	23.6	26.4	9	18	7	17	10	21
Newport Barracks	62.80	68.90	75.20	69.00	68.97	86	50	17.0	19.0	4	11	19	36	3	4
Fort Ripley	51.80	67.46	73.93	59.00	63.05	87	34	24.0	29.0	20	58	5	7	0	0
Fort Snelling	55.43	69.86	81.63	73.33	70.06	96	34	26.0	36.0	10	28	3	6	5	10
Fort Dodge	65.53	71.80	77.83	73.66	72.20	89	54	16.8	18.2	13	21	9	14	8	16
Fort Leavenworth	62.90	70.73	77.56	68.63	69.96	89	44	19.0	26.0	6	8	12	17	1	1
Fort Kearney	59.33	68.80	78.23	65.06	67.86	93	44	25.1	23.9	23	56	35	79	5	9
Fort Laramie	58.20	68.90	75.90	65.73	67.18	89	47	21.8	20.2	7	15	32	95	12	30
Fort Atkinson	65.53	70.60	78.90	70.86	71.47	89	45	17.5	26.5	14	34	9	14	18	21
Fort Arbuckle	66.00	75.90	81.43	71.53	73.71	89	51	15.3	22.7	2	2	6	7	10	15
Fort Belknap	66.00	76.22	86.20	75.10	75.88	94	52	18.1	23.9	20	23	2	2	6	6
Phantom Hill	67.33	77.33	85.66	73.53	75.96	106	58	30.1	17.9	4	9	4	8	35	37
Fort Chadbourne	62.27	76.23	87.13	68.67	73.57	100	82	26.4	21.6	0	0	28	42	3	3
Fort Worth	68.10	81.46	86.26	71.50	76.83	93	61	16.2	15.8	10	17	11	12	19	35

MONTH OF JUNE, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
4	10	17	56	20	118	19	49	18	41	4.56	5.06	5.07	4.89	4.90	16	14	17	0	2.20	
6	15	7	16	19	53	38	105	22	56	5.40	6.03	5.66	5.23	5.58	18	12	12	0	5.02	
5	7	21	49	17	53	44	84	17	50	4.90	5.86	6.20	5.80	5.69	19	11	11	0	2.79	
8	20	45	127	18	48	19	55	15	50	5.93	5.91	4.76	5.27	5.47	19	11	8	0	2.71	
7	18	7	22	47	159	2	5	25	100	4.80	7.00	5.93	6.00	5.93	21	9	8	0	1.70	
7	9	1	3	73	145	7	10	18	43	5.30	4.80	5.40	5.60	5.28	20	11	9	0	4.23	
13	34	35	97	18	54	19	43	24	80	7.20	6.60	6.60	5.10	6.37	24	6	11	0	2.80	
5	14	20	51	29	70	23	53	28	78	6.66	6.20	6.20	7.33	6.60	22	8	9	0	2.11	
6	8	48	85	13	28	5	8	25	62	4.63	4.97	4.90	5.63	5.03	20	11	11	0	2.30	
..	..	..	..	..	..	..	..	..	..	8.33	7.03	7.50	7.50	7.59	24	6	6	0	1.28	
20	29	0	0	64	93	0	0	31	45	6.56	7.00	7.26	7.20	7.00	23	7	7	0	4.06	
10	33	7	30	47	94	21	68	16	48	5.66	6.10	5.26	5.57	5.65	20	10	9	0	2.91	
7	13	6	8	31	94	14	41	12	25	3.33	5.00	4.70	6.00	4.76	19	11	9	0	2.76	
0	0	18	36	10	18	41	132	16	49	....	....	....	....	....	..	..	11	0	3.36	
10	23	18	36	22	31	9	29	26	69	5.60	4.90	4.40	4.20	4.78	15	15	12	0	4.55	Temp. in excess at 3
5	12	7	12	21	65	40	113	19	50	6.46	6.36	5.33	4.56	5.68	20	10	10	0	2.70	[p. m.
25	63	10	37	30	85	6	15	20	60	5.50	5.00	4.00	4.70	4.80	17	13	12	0	3.51	
19	41	4	9	55	138	1	1	9	20	4.97	6.27	5.83	6.53	5.90	21	9	7	0	1.89	
13	26	21	65	22	48	11	17	8	10	5.50	5.56	5.46	5.83	5.59	18	12	9	0	8.86	
5	13	31	78	5	10	27	44	0	0	5.00	4.16	3.90	4.86	4.48	15	15	9	0	6.85	
36	90	23	79	11	33	6	14	5	10	4.30	4.53	4.70	6.66	5.05	19	11	10	0	8.51	
6	8	4	8	3	4	42	89	15	32	4.80	4.80	3.70	5.50	4.70	16	14	16	0	18.13	
18	26	7	7	13	18	36	50	5	14	4.13	2.40	2.56	6.23	3.83	10	20	13	0	13.20	
16	18	22	27	10	11	26	28	4	6	6.60	5.97	5.40	6.83	6.20	19	11	16	0	11.71	
4	15	1	4	18	76	2	6	27	50	0.82	2.19	2.06	7.13	3.05	4	12	2	0	0.60	Last 16 days.
6	6	6	9	8	15	15	28	15	27	4.70	5.50	5.36	6.33	5.47	18	12	8	0	1.56	
16	35	27	77	18	61	32	65	6	11	3.00	3.33	3.60	4.66	3.65	10	20	4	0	1.85	
2	2	12	14	8	20	26	37	8	10	5.10	5.10	5.33	7.30	5.71	18	12	7	0	1.33	
25	57	28	58	17	37	9	19	1	3	4.56	4.70	4.30	7.33	5.22	17	13	8	0	5.48	
4	8	11	20	4	9	10	22	5	13	3.93	6.23	6.26	7.40	5.96	23	7	7	0	4.58	
12	13	36	53	6	10	0	0	3	8	5.03	5.04	5.06	7.53	5.66	18	12	9	0	5.85	
6	13	44	97	14	28	7	12	8	14	5.56	6.23	4.96	7.03	5.95	21	9	8	0	6.36	
5	9	29	37	8	10	33	68	8	15	5.36	6.66	6.60	6.20	6.21	22	8	12	0	11.85	
1	1	16	29	15	17	21	28	6	24	6.60	6.93	7.07	2.47	5.77	22	8	10	0	7.82	
3	3	22	24	23	39	20	36	4	12	5.63	5.30	6.10	7.33	6.09	20	10	10	0	4.20	Therm. protected.
8	13	26	51	19	41	23	52	6	14	5.51	5.23	5.56	7.86	6.04	24	6	9	1	2.10	
37	99	9	21	29	65	6	14	18	35	7.36	7.46	8.30	7.90	7.75	26	4	4	0	0.08	
3	6	6	20	29	85	12	31	31	57	4.96	4.63	3.53	5.10	4.55	18	12	13	0	5.16	Therm. protected
28	48	21	36	29	45	2	3	12	18	4.66	6.53	6.00	5.85	5.76	21	9	7	0	6.53	
12	24	34	102	1	3	0	0	0	0	4.03	5.26	4.83	5.63	4.94	18	12	8	0	3.02	
6	24	2	11	6	21	1	6	35	97	4.36	5.76	3.56	5.16	4.71	16	14	18	0	4.08	
26	46	41	96	5	8	0	0	0	0	6.60	6.56	6.53	7.23	6.73	21	9	6	0	....	
39	69	25	66	11	25	4	5	4	5	7.06	7.36	8.20	8.86	7.87	25	5	8	0	5.30	
19	25	20	21	11	12	3	4	3	4	6.16	7.11	7.28	7.25	6.96	25	5	4	0	....	
1	1	68	103	2	7	5	5	0	0	5.66	5.93	6.03	6.60	6.06	20	10	7	0	....	
51	80	8	10	1	1	0	0	15	35	5.37	5.17	5.97	6.97	5.87	19	11	8	0	5.00	
27	64	21	45	11	25	10	17	2	4	4.40	5.23	4.80	8.23	5.67	18	12	9	0	3.81	

MONTH OF JUNE, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Graham	70.20	76.56	88.40	75.90	77.76	100	56	22.2	21.8	4	10	2	5	1	4
Fort Croghan	70.36	78.30	87.80	77.76	78.56	95	60	16.5	18.5	6	14	14	26	4	10
San Antonio	77.05	81.45	88.03	81.75	82.07	94	72	11.9	10.1	1	1	2	2	11	28
Fort Mason	70.03	74.26	87.06	71.60	75.74	96	67	20.3	8.7	2	8	15	37	2	3
Fort McKavett	68.53	76.33	85.20	72.83	75.72	93	58	17.3	17.7	0	0	0	0	11	20
Fort Terrett	66.83	76.86	89.10	75.23	77.96	99	57	21.1	20.9	0	0	3	7	37	57
Fort Merrill	70.00	84.13	91.86	75.23	80.30	98	60	17.7	20.3	4	13	7	19	10	20
Fort Brown	72.20	88.83	88.06	75.46	81.14	99	67	17.9	14.1	0	0	16	33	22	44
Ringgold Barracks	76.30	83.98	93.73	80.40	83.60	100	63	16.4	20.6	2	5	7	24	15	38
Fort McIntosh	73.13	86.90	96.33	82.33	84.67	105	62	20.3	22.7	1	2	24	34	15	20
Fort Duncan	73.20	86.23	96.66	83.13	84.80	107	62	22.2	22.8	3	10	14	32	35	88
Fort Inge	69.16	77.50	87.50	75.63	77.45	93	57	15.6	20.4	4	6	26	36	42	96
Fort Lincoln	73.00	77.70	89.70	79.10	79.88	93	68	13.1	11.9	25	36	0	0	0	0
Fort Fillmore	68.20	83.72	93.26	70.03	78.05	100	55	22.0	23.0	9	24	19	42	9	19
Fort Webster	61.73	75.40	80.13	58.60	68.97	96	50	27.0	19.0	11	22	7	11	14	18
Fort Conrad	59.20	75.40	86.63	71.00	73.06	96	45	23.0	28.0	16	52	2	5	1	1
Albuquerque	......	......	......	......	......	....	....	......	......	39	89	0	0	6	11
Fort Union	49.53	66.30	69.50	57.83	60.79	83	42	22.2	18.8	13	21	4	4	2	2
Fort Defiance	48.30	69.13	80.53	61.03	64.75	90	41	25.3	23.7	17	40	33	83	33	72
Fort Yuma	74.13	88.16	101.20	85.50	87.00	106	68	19.0	19.0	4	4	5	12	8	9
San Diego	62.26	67.66	74.30	64.13	67.09	80	58	12.9	9.1	0	0	4	4	8	10
Rancho del Chino	59.93	67.30	81.66	66.16	68.76	90	56	21.2	12.8	0	0	0	0	0	0
Monterey	51.50	60.70	63.26	60.48	59.00	70	47	11.0	12.0	16	28	3	6	2	4
Benicia	55.96	65.43	80.36	61.40	65.71	94	53	28.3	12.7	0	0	0	0	0	0
Fort Miller	72.42	93.57	108.42	79.78	88.55	116	68	27.4	20.6	4	10	3	3	5	5
Fort Reading	62.26	81.48	96.26	75.96	79.00	106	54	27.0	25.0	7	14	4	4	1	1
Fort Orford	53.60	65.16	67.56	55.56	60.47	77	46	16.5	14.5	1	4	0	0	0	0
Columbia Barracks	55.23	66.26	80.55	66.39	67.11	92	47	24.9	20.1	12	14	8	14	6	11
Fort Steilacoom	51.03	65.23	73.96	61.76	63.00	93	41	30.0	22.0	8	26	5	16	0	0

MONTH OF JUNE, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
18	43	89	174	5	16	0	0	0	0	6.83	7.06	7.56	8.26	7.43	23	7	7	0	3.68	
51	139	13	45	9	20	1	2	1	1	3.33	4.53	4.46	6.66	4.75	16	14	11	0	3.78	
90	230	11	20	12	25	1	2	2	10	3.20	4.83	5.83	6.60	5.11	16	14	9	0	5.09	Temp. in excess at
13	29	4	6	27	72	1	1	5	13	5.96	7.03	8.50	8.40	7.47	24	6	9	0	3.46	[sunrise.
23	27	43	56	28	37	2	2	14	28	6.03	6.76	7.76	8.03	7.18	23	7	6	0	4.84	
54	88	3	6	6	9	9	10	3	3	4.23	5.73	6.26	5.26	5.37	22	8	9	0	4.27	
42	90	17	43	8	19	2	6	3	5	5.56	6.04	5.53	9.03	6.54	23	7	6	0	1.13	
44	89	29	60	8	16	1	2	0	0	5.50	5.56	5.03	6.20	5.57	20	10	5	0	5.05	
47	80	35	92	1	1	0	0	0	0	5.46	6.06	5.53	7.33	6.10	21	9	7	0	0.96	
68	105	8	11	0	0	0	0	6	8	5.57	5.63	5.03	6.83	5.76	21	9	7	0	1.19	
58	201	0	0	0	0	1	7	3	9	6.46	6.86	7.06	8.30	7.17	22	8	7	0	2.81	
8	16	1	4	0	0	0	0	0	0	3.43	5.00	5.70	6.53	5.16	18	12	6	0	8.07	
20	33	53	67	16	26	4	4	0	0	3.66	4.90	5.36	4.30	4.55	15	15	9	0	3.38	
13	24	2	3	15	26	15	25	28	65	7.56	8.06	6.79	6.89	7.32	26	4	8	0	1.74	
23	31	16	19	10	13	15	23	12	27	9.30	8.60	6.53	7.53	8.00	27	3	15	0	4.89	Temp. and clearness
0	0	10	33	3	9	21	74	5	17	6.20	7.06	6.03	4.73	6.00	22	8	12	0	2.15	[inaccurate.
2	7	34	82	0	0	3	12	1	1	6.22	6.25	4.28	5.25	5.50	23	7	10	0	8.15	
13	36	9	19	7	11	3	7	24	46	5.93	6.90	4.86	4.36	5.51	18	12	17	0	7.05	
13	29	9	16	3	8	3	7	2	4	5.96	5.95	4.10	3.83	4.96	16	14	8	0	2.35	
29	92	28	71	12	28	9	12	5	14	7.56	8.46	8.10	9.20	8.33	30	0	1	0	0.00	
5	6	12	16	45	96	44	81	4	7	0.00*	3.43	7.46	3.50	3.60	18	12	0	0	0.00	* Dense fogs.
1	1	24	56	48	102	46	112	0	0	2.10	4.83	7.93	7.56	5.60	22	8	0	0	0.00	
4	6	9	30	26	87	36	98	5	9	2.26	2.96	6.16	2.96	3.58	15	15	3	0	0.16	
0	0	0	0	12	39	105	373	2	7	4.60	6.76	8.96	7.56	6.97	23	7	1	0	0.03	
0	0	0	0	3	6	6	14	3	9	9.14	9.57	9.57	9.64	9.48	13	1	0	0	0.00	First 14 days.
11	17	14	21	3	4	3	3	15	26	8.96	8.80	8.26	8.30	8.58	30	0	2	0	1.06	
21	47	5	20	1	3	1	5	91	350	6.76	6.86	7.10	7.36	7.02	26	4	1	0	0.33	
8	17	2	5	17	43	25	57	33	105	7.26	7.63	7.86	7.56	7.63	26	4	6	0	1.77	
12	19	3	13	12	39	9	15	59	161	4.76	4.93	5.50	5.96	5.29	20	10	6	0	0.82	

MONTH OF JULY, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	51.32	66.22	67.74	59.03	61.08	85	47	23.9	14.1	0	0	9	26	5	20
Fort Preble	60.25	72.39	75.93	64.74	68.33	92	54	23.7	14.3	13	38	8	24	0	0
Fort Constitution	60.48	67.58	77.29	64.12	67.37	96	52	28.6	15.4	9	26	0	0	3	9
Fort Independence	64.00	71.96	83.41	69.00	72.09	96	57	23.9	15.1	5	13	15	42	7	17
Fort Adams	67.09	74.00	77.48	70.74	72.33	85	56	12.7	18.3	11	39	2	11	5	21
Fort Trumbull	66.48	73.97	78.10	70.83	72.34	86	59	13.7	13.3	2	4	18	41	0	0
Fort Hamilton	67.90	75.20	81.10	71.90	74.02	98	62	24.0	12.0	12	26	3	4	10	21
Fort Columbus	68.09	76.61	86.10	75.65	76.61	93	61	16.4	15.6	15	26	8	15	4	10
West Point	66.26	73.16	80.61	71.58	72.90	92	55	19.1	17.9	26	56	3	7	0	0
Watervliet Arsenal	69.54	76.77	86.41	69.03	75.44	97	60	21.6	15.4	11	28	0	0	0	0
Fort Ontario	63.70	72.96	76.35	65.41	69.60	96	54	26.4	15.6	0	0	11	18	0	0
Fort Niagara	61.54	72.32	77.00	66.61	69.37	93	48	23.6	21.4	9	25	13	24	14	34
Alleghany Arsenal	63.42	75.93	83.87	71.64	73.71	95	49	21.3	24.7	14	27	12	25	14	24
Carlisle Barracks	63.07	75.55	86.03	72.00	74.16	98	50	23.8	24.2	2	5	3	7	31	71
Fort Mifflin	69.60	77.60	87.40	73.30	76.97	96	63	19.0	14.0	0	0	0	0	1	1
Fort McHenry	70.48	75.00	80.51	73.41	74.85	89	62	14.2	12.8	8	22	12	35	3	6
Fort Washington	69.09	81.00	90.67	73.77	78.63	102	58	23.4	20.6	13	45	18	55	5	12
Fort Monroe	73.15	76.25	80.27	75.24	76.23	90	70	13.8	6.2	1	3	28	79	9	22
Fort Moultrie	76.29	83.41	85.35	80.54	81.40	92	71	10.6	10.4	6	13	10	28	10	27
Fort Pierce	74.51	86.35	84.38	74.83	80.02	91	67	11.0	13.0	6	18	3	6	36	79
Key West Barracks	79.93	84.39	86.58	82.77	83.42	89	77	5.6	6.4	1	4	5	14	24	58
Fort Myers	78.96	83.00	89.41	82.61	83.50	94	76	10.5	7.5	13	17	8	14	16	24
Fort Brooke	75.64	79.67	84.67	78.48	79.61	91	73	11.4	6.6	0	0	14	16	22	28
Fort Meade	72.58	83.35	86.20	76.35	79.62	94	70	14.4	9.6	8	9	3	4	29	37
Barrancas Barracks	76.06	83.74	86.32	79.80	81.48	90	70	8.5	11.5	5	6	8	17	0	0
Mount Vernon Arsenal	75.77	82.64	89.51	81.25	82.29	98	70	15.7	12.3	11	15	22	43	5	6
East Pascagoula	78.32	86.46	88.77	82.37	83.98	94	72	10.0	12.0	11	21	1	2	3	7
Baton Rouge Barracks	70.58	83.96	89.00	75.22	79.69	95	65	15.3	14.7	28	40	13	19	28	33
Fort Washita	70.22	79.93	87.09	77.25	78.62	93	64	14.4	14.6	6	15	21	50	18	36
Fort Smith	71.41	77.29	85.61	77.98	73.07	91	66	17.9	7.1	15	25	13	21	30	46
Fort Gibson	71.77	81.29	86.97	76.39	81.60	94	66	12.4	15.6	0	0	0	0	1	1
Fort Scott	69.90	73.74	85.00	75.47	76.03	94	64	18.0	12.0	5	6	28	34	15	22
Jefferson Barracks	70.54	75.69	86.83	77.32	77.60	94	57	16.4	20.6	3	5	5	6	0	0
St. Louis Arsenal	75.22	79.00	89.00	74.26	78.12	100	58	21.9	20.1	19	42	2	2	20	31
Newport Barracks	69.58	77.09	84.00	76.29	76.74	92	56	15.3	20.7	9	18	34	49	3	4
Fort Mackinac	58.48	66.70	71.48	61.22	64.47	81	46	16.5	18.5	13	18	11	17	9	14
Fort Ripley	57.29	69.48	79.41	65.80	68.00	90	38	22.0	30.0	16	28	8	20	11	18
Fort Snelling	62.16	74.93	83.29	74.35	73.68	94	45	20.3	23.7	1	1	14	21	9	13
Fort Dodge	69.93	73.70	82.32	79.00	76.24	94	62	17.8	14.2	12	12	15	17	4	7
Fort Leavenworth	67.12	75.70	82.58	73.77	74.79	93	58	18.2	16.8	2	2	21	23	0	0
Fort Kearney	64.38	73.54	82.74	69.83	72.62	94	55	21.4	17.6	11	23	19	48	6	10
Fort Laramie	63.93	76.16	86.25	73.87	75.05	97	55	22.0	20.0	4	13	36	117	4	8
Fort Atkinson	70.74	76.70	84.96	75.70	77.02	93	65	16.0	12.0	3	7	3	7	33	68
Fort Arbuckle	70.41	80.29	86.38	75.96	78.26	93	63	14.8	15.2	0	0	4	4	12	14
Fort Belknap	70.90	83.29	91.51	76.61	80.58	98	65	17.4	15.6	0	0	4	6	1	2
Phantom Hill	71.77	82.38	91.51	76.22	80.47	98	64	17.5	16.5	5	5	0	0	14	14
Fort Chadbourne	68.61	81.77	90.77	75.45	79.15	99	65	19.9	14.1	0	0	5	7	10	14

MONTH OF JULY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	4	23	70	48	136	11	33	20	51	4.77	5.71	5.32	4.87	5.17	18	13	7	0	4.00	
0	0	0	0	8	13	21	62	72	171	5.87	5.90	6.06	6.48	6.08	22	9	5	0	3.19	
7	15	31	63	18	43	42	78	12	25	6.03	6.77	7.25	6.58	6.66	23	8	6	0	2.53	
10	25	6	14	39	117	23	76	4	9	4.83	7.12	6.71	6.25	6.23	23	8	7	0	1.92	
4	12	56	181	16	53	24	69	3	11	5.00	4.64	4.51	4.93	4.77	18	13	4	0	2.10	
18	30	4	9	57	129	2	2	15	27	4.50	5.30	5.60	4.60	5.00	19	12	4	0	2.94	
14	36	32	80	4	10	23	40	19	32	6.70	6.60	7.00	7.20	6.87	22	9	8	0	2.64	
13	34	29	62	15	39	16	33	18	39	6.48	6.06	5.67	4.71	5.73	23	8	8	0	3.25	
5	9	53	103	5	10	5	13	20	51	4.68	5.90	4.58	6.84	5.50	21	10	10	0	4.67	
1	2	70	190	0	0	38	76	1	2	7.74	8.61	7.75	7.60	7.92	24	7	5	0	2.87	
21	29	0	0	66	114	0	0	20	41	8.32	8.45	8.48	7.96	8.30	27	4	4	0	1.18	Inaccurate.
7	10	2	2	41	104	18	66	11	13	6.42	6.64	6.87	7.68	6.90	23	8	8	0	1.98	
4	5	9	22	10	23	8	17	14	35	4.45	6.67	5.80	7.30	6.05	23	8	8	0	2.55	
12	26	13	24	8	13	40	83	13	32	....	....	....	....	....	22	9	8	0	3.51	
29	51	9	12	18	32	7	10	2	2	5.20	5.80	5.50	5.70	5.55	21	10	8	0	5.45	
11	31	16	39	22	48	34	67	11	30	4.77	5.45	6.12	6.16	5.62	18	13	10	0	5.70	
29	68	13	37	19	57	4	14	17	50	4.45	5.22	4.67	5.12	4.86	18	13	11	0	2.89	
28	54	1	1	40	88	1	3	6	8	4.13	4.17	5.06	5.25	4.65	19	12	12	0	3.83	
19	42	15	39	29	69	18	27	13	25	5.61	4.96	5.35	5.70	5.40	19	12	10	0	5.43	
15	39	18	33	5	11	23	47	0	0	4.83	4.45	3.45	5.58	4.58	21	10	11	0	8.00	
20	41	27	55	20	55	7	14	4	14	4.09	4.39	3.87	6.06	4.58	20	11	10	0	6.16	
16	22	12	18	3	5	11	22	4	6	5.48	4.58	3.51	4.87	4.61	18	13	12	0	12.02	
23	34	15	19	15	20	30	38	3	5	3.96	3.32	2.39	5.22	3.72	14	17	14	0	10.95	
15	16	24	28	1	1	32	39	1	3	7.97	7.77	5.65	7.29	7.17	21	10	18	0	11.41	Clearness inaccurate.
7	23	1	5	22	71	5	12	27	50	4.00	3.61	2.70	5.06	3.84	15	16	10	0	8.02	
11	20	14	25	21	36	28	34	12	19	6.42	7.19	3.90	4.58	5.52	20	11	6	0	1.92	
19	38	21	53	31	79	26	43	11	21	2.77	2.83	2.51	4.12	3.06	12	19	10	0	6.04	
2	3	12	19	10	20	15	20	12	14	5.00	5.83	4.51	5.96	5.32	23	8	12	0	5.64	
14	33	30	81	19	47	0	0	2	2	4.16	4.22	3.67	6.51	4.64	17	14	6	0	2.90	
7	11	16	36	2	2	3	6	2	3	2.64	5.58	5.59	7.25	5.27	18	13	9	0	4.96	
8	21	17	46	0	0	0	0	0	0	4.96	5.00	4.32	7.19	5.37	20	11	11	0	6.12	
12	14	27	65	17	36	7	8	3	3	5.87	5.29	4.99	6.83	5.75	18	13	9	0	4.45	
8	18	9	13	3	4	20	26	8	11	6.80	6.90	7.48	7.38	7.14	26	5	4	0	2.72	
2	2	19	25	11	15	12	20	4	6	....	....	....	....	....	..	..	4	0	1.08	
7	9	11	11	25	41	10	14	4	12	7.03	7.09	6.45	8.32	7.22	25	6	3	0	1.10	
18	26	4	5	4	4	33	60	19	38	6.48	6.61	6.32	7.41	6.70	24	7	8	0	2.52	
19	47	35	64	17	39	13	28	6	16	6.61	5.70	5.61	6.12	6.01	21	10	12	0	3.92	
25	39	11	16	33	45	12	18	13	17	6.64	7.35	7.80	8.87	7.66	24	7	6	0	2.74	
6	12	6	14	47	165	11	30	15	18	3.74	4.41	4.32	5.96	4.61	17	14	7	0	1.57	
28	49	12	23	29	41	1	1	10	10	4.70	6.70	6.00	5.45	5.71	19	12	7	0	4.60	
50	145	13	32	0	0	0	0	3	12	4.96	5.29	5.45	5.64	5.34	18	13	10	0	2.69	
15	71	1	5	6	24	0	0	34	90	5.32	6.61	5.29	5.41	5.66	23	8	12	0	1.88	
33	62	45	109	2	3	0	0	0	0	6.96	8.00	8.54	7.96	7.86	27	4	6	0	....	
37	77	21	64	15	28	7	8	1	1	8.77	8.09	8.87	9.64	8.84	29	2	7	0	5.09	
12	14	22	39	13	20	0	0	0	0	8.45	8.30	8.50	8.10	8.34	28	3	4	0	....	
4	12	79	188	4	20	11	15	4	4	6.29	8.16	7.67	8.09	7.55	27	4	9	0	....	
55	96	38	81	3	3	2	2	2	6	5.77	6.35	6.00	7.61	6.43	22	9	7	0	5.98	

MONTH OF JULY, 1852

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	71.22	88.93	90.83	75.96	81.73	101	64	19.3	17.7	19	35	25	45	11	22
Fort Graham	74.29	81.87	100.48	80.93	84.39	112	70	27.6	14.4	0	0	0	0	3	6
Fort Croghan	73.32	82.03	89.74	80.16	81.31	95	69	13.7	13.3	0	0	10	24	13	32
San Antonio	79.03	83.70	89.90	82.35	83.74	95	75	11.3	8.7	0	0	0	0	0	0
Fort Mason	71.68	76.74	87.52	74.55	77.62	95	66	17.4	11.6	2	4	11	21	2	4
Fort McKavett	72.12	80.83	89.03	74.29	79.07	95	63	15.9	16.1	0	0	20	34	6	6
Fort Terrett	69.09	81.09	91.58	78.41	80.04	100	64	20.0	16.0	0	0	2	3	18	28
Fort Merrill	72.38	86.61	92.38	76.03	81.85	100	68	18.2	13.8	2	4	2	3	12	24
Fort Brown	77.09	86.80	88.42	77.74	82.51	93	73	10.5	9.5	0	0	2	4	3	6
Ringgold Barracks	78.67	85.12	96.74	82.25	85.69	102	76	16.3	9.7	0	0	0	0	0	0
Fort McIntosh	75.42	90.71	98.65	84.65	87.36	104	70	16.6	17.4	1	1	3	6	36	57
Fort Duncan	74.74	88.00	95.61	84.32	85.67	106	70	20.3	15.7	1	2	1	1	43	113
Fort Inge	71.67	81.03	88.38	78.00	79.77	94	68	14.2	11.8	0	0	9	14	74	137
Fort Lincoln	78.55	81.72	90.89	82.33	83.37	94	72	10.6	11.4	1	1	2	5	4	5
Fort Fillmore	66.52	87.41	94.16	70.19	79.57	107	57	27.4	22.6	3	8	1	2	10	24
Fort Webster	66.06	79.03	82.19	66.83	73.53	100	50	26.5	23.8	10	12	19	30	14	20
Fort Conrad	63.59	82.06	95.83	72.03	78.36	101	55	22.6	23.4	10	25	0	0	2	4
Albuquerque	......	......	......	......	......	....	....	......	......	14	23	0	0	3	7
Fort Union	54.54	72.96	77.96	64.38	67.46	87	46	19.5	21.5	15	25	3	4	2	6
Fort Defiance	52.35	71.06	84.09	65.13	68.16	90	43	21.8	25.2	5	5	22	44	10	21
Fort Yuma	78.25	88.54	100.83	87.00	88.65	108	70	19.4	18.6	2	3	1	1	24	35
San Diego	67.22	74.54	81.00	70.25	73.25	88	60	14.7	13.3	0	0	5	6	10	12
Rancho del Chino	62.45	72.19	86.96	71.16	73.19	91	56	17.8	17.2	0	0	2	3	0	0
Monterey	55.43	62.12	71.48	57.17	61.55	81	52	19.5	9.5	6	11	1	3	0	0
San Francisco	57.29	59.48	63.16	59.51	59.86	69	55	9.1	4.9	0	0	0	0	0	0
Benicia	58.65	70.35	85.03	66.32	70.09	98	54	27.9	16.1	0	0	0	0	0	0
Fort Reading	62.35	82.61	97.16	79.38	80.37	106	53	25.6	27.4	6	7	0	0	0	0
Fort Orford	55.02	66.63	69.72	53.95	61.33	76	46	14.7	15.3	0	0	0	0	0	0
Fort Steilacoom	53.43	64.00	75.43	61.20	63.51	87	49	23.5	14.5	2	6	2	8	7	10

MONTH OF JULY, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
31	98	14	43	5	10	1	1	2	2	7.32	6.35	5.64	8.80	7.03	23	8	8	0	3.14	
6	14	100	157	8	28	4	15	0	0	7.64	8.25	8.83	8.77	8.37	27	4	5	0	4.90	Temp. in excess.
47	161	19	54	5	12	3	5	4	7	4.35	4.38	4.00	7.03	4.94	22	9	8	0	3.75	
27	51	52	74	44	82	0	0	0	0	1.64	4.61	5.16	7.00	4.60	20	11	5	0	3.53	
8	18	8	11	40	153	1	1	1	1	6.77	7.58	7.87	9.10	7.83	25	6	6	0	6.64	
70	214	22	28	0	0	0	0	2	10	6.42	7.26	6.19	8.06	6.98	25	6	6	0	1.84	
99	164	0	0	2	3	2	3	0	0	5.38	6.90	6.80	5.80	6.22	26	5	6	0	3.04	
45	116	40	111	4	13	6	14	0	0	6.35	4.96	4.93	8.83	6.27	27	4	8	0	8.76	
47	102	33	69	24	53	1	3	0	0	6.63	6.54	6.58	6.93	6.67	24	7	2	0	0.70	
33	96	87	288	0	0	0	0	0	0	6.80	6.58	4.80	7.80	6.50	26	5	6	0	0.82	
78	136	3	6	1	1	0	0	0	0	6.65	6.48	4.77	7.87	6.44	25	6	5	0	1.52	
69	275	1	1	1	3	2	3	0	0	8.32	7.70	7.16	9.16	8.08	27	4	8	0	6.70?	
4	5	4	7	0	0	0	0	0	0	4.12	5.83	6.32	8.19	6.11	25	6	6	0	6.82	
31	36	34	54	0	0	0	0	0	0	5.77	7.05	7.55	6.77	6.78	16	2	1	0	1.10	First 18 days.
34	76	9	18	30	45	23	29	12	25	6.84	7.64	6.83	7.45	6.94	27	4	6	0	3.84	
21	30	11	17	11	18	32	38	2	3	8.03	8.12	6.19	7.29	7.41	26	5	15	0	4.79	
1	5	17	54	4	10	18	42	1	2	7.29	8.03	6.03	5.35	6.67	25	6	7	0	0.65	
0	0	53	116	0	0	9	34	0	0	7.21	7.27	6.19	5.18	6.46	28	3	5	0	0.07	
5	13	7	11	5	7	18	39	42	73	6.63	7.12	6.51	6.00	6.56	24	7	10	0	2.73	
6	11	1	2	33	46	28	33	15	18	7.03	6.70	5.70	5.51	6.23	25	6	6	0	0.90	
20	65	28	63	11	32	19	34	0	0	5.35	6.00	6.19	6.48	6.00	24	8	4	0	0.28	
6	8	17	24	46	81	32	44	3	4	1.64	6.87	7.29	7.12	5.73	24	8	0	0	0.00	
5	10	0	0	98	194	8	12	0	0	5.16	6.41	7.12	7.09	6.45	29	2	0	0	0.00	
3	6	0	0	21	85	33	123	27	85	3.83	6.74	7.84	6.00	6.10	24	7	0	0	0.00	
1	3	0	0	14	40	64	323	44	201	4.32	4.33	6.09	5.12	5.21	18	13	0	0	0.00	
0	0	0	0	9	38	108	500	1	5	6.80	8.84	9.22	8.90	8.44	29	2	0	0	0.00	
4	5	15	19	6	7	6	8	7	17	9.09	9.06	8.73	8.83	8.93	30	1	0	0	0.00	
30	89	0	0	0	0	0	0	94	364	6.90	7.19	7.84	7.84	7.44	25	6	3	0	0.31	
5	11	2	5	19	62	33	73	47	124	3.30	3.93	4.56	5.56	4.34	16	15	6	0	0.93	

MONTH OF AUGUST, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	53.97	63.48	67.03	58.55	60.76	76	48	15.2	12.8	5	14	19	61	8	14
Fort Preble	57.48	68.58	70.96	61.77	64.70	81	49	16.3	15.7	12	26	19	60	1	1
Fort Constitution	57.49	66.22	72.12	60.00	63.95	84	52	20.1	11.9	10	17	16	57	9	29
Fort Independence	60.00	66.64	75.74	64.63	66.75	84	56	17.3	10.7	4	12	25	103	3	9
Fort Adams	65.06	69.97	74.19	68.19	69.35	80	60	10.7	9.3	19	89	15	68	8	21
Fort Trumbull	63.70	70.90	74.90	67.10	69.15	80	58	10.9	11.1	0	0	53	77	1	3
Fort Hamilton	64.60	71.40	78.20	69.90	71.02	88	63	17.0	8.0	24	42	4	8	2	3
Fort Columbus	66.29	73.35	80.58	72.87	73.27	87	60	13.7	13.3	12	29	27	81	3	4
West Point	62.45	68.10	74.32	66.13	67.75	83	58	15.3	9.7	49	151	3	3	2	4
Watervliet Arsenal	66.45	73.12	78.64	67.96	71.54	88	53	16.5	18.5	17	31	10	20	0	0
Fort Ontario	60.58	69.64	76.29	63.87	67.59	95	52	27.4	15.6	0	0	35	58	0	0
Fort Niagara	62.48	69.71	76.90	67.61	69.17	90	55	20.8	14.2	7	31	7	18	38	77
Alleghany Arsenal	61.35	71.29	77.38	67.51	69.38	86	51	16.6	18.4	11	14	23	33	10	15
Carlisle Barracks	58.93	69.68	78.61	67.26	68.62	89	51	20.4	17.6	2	6	4	14	25	57
Fort Mifflin	65.26	73.26	82.16	68.39	72.27	91	57	18.7	15.3	0	0	22	54	0	0
Fort McHenry	67.03	71.38	76.48	71.10	71.50	83	60	11.5	11.5	20	43	17	40	6	17
Fort Washington	64.45	75.32	81.00	68.96	72.43	93	54	20.6	18.4	16	61	10	28	1	4
Fort Monroe	70.67	73.03	78.64	74.16	74.12	86	64	11.9	10.1	3	3	35	78	2	4
Fort Moultrie	74.38	81.87	84.03	78.87	79.79	90	66	10.2	13.8	15	34	6	15	17	35
Fort Pierce	79.29	85.54	85.16	77.87	81.96	91	70	9.0	12.0	1	3	17	49	40	134
Key West Barracks	80.22	84.77	87.19	83.26	83.86	91	75	7.1	8.9	8	16	13	50	26	92
Fort Myers	79.03	82.48	87.61	82.61	82.93	94	74	11.1	8.9	8	22	0	0	8	19
Fort Brooke	76.41	80.41	84.77	78.73	80.08	90	74	9.9	6.1	0	0	10	12	21	31
Fort Meade	71.94	82.64	89.71	77.87	80.54	94	70	13.5	10.5	2	2	0	0	37	37
Barrancas Barracks	75.32	80.97	85.70	79.13	80.28	90	71	9.7	9.3	21	51	8	43	0	0
Mount Vernon Arsenal	76.22	77.96	88.19	86.19	82.14	96	70	13.9	12.1	12	15	42	85	19	59
East Pascagoula	77.88	84.75	88.38	82.00	83.25	97	71	13.7	12.3	19	46	5	24	1	1
Baton Rouge Barracks	70.19	83.45	87.87	75.16	79.17	93	64	13.8	15.2	22	43	17	22	37	49
Fort Washita	69.38	78.64	87.32	77.35	78.17	96	63	17.8	15.3	6	12	12	24	12	26
Fort Smith	69.80	75.16	84.51	76.58	76.51	91	63	14.5	13.5	8	12	19	37	23	34
Fort Gibson	69.41	78.22	86.00	74.26	76.97	95	62	18.0	15.0	8	8	4	4	13	13
Fort Scott	67.58	76.02	84.02	72.68	75.07	92	61	16.9	14.1	9	13	23	30	10	11
Jefferson Barracks	67.51	74.32	79.25	73.32	73.60	90	55	16.4	18.6	6	9	6	8	5	6
St. Louis Arsenal	66.36	73.52	83.65	70.68	73.55	95	58	21.5	15.5	12	24	7	12	15	25
Newport Barracks	65.45	71.45	79.06	72.83	72.20	84	55	11.8	17.2	6	12	39	64	13	16
Fort Mackinac	58.41	69.09	72.61	62.51	65.65	84	52	18.4	13.6	16	39	5	7	7	11
Fort Ripley	53.87	70.67	70.09	62.70	66.58	92	36	25.4	30.6	14	23	4	6	13	19
Fort Snelling	59.96	72.19	82.16	71.96	71.57	91	46	19.4	25.6	10	16	11	12	5	8
Fort Dodge	67.67	72.93	80.45	77.51	74.64	90	60	15.4	14.6	5	8	15	23	18	28
Fort Leavenworth	64.64	73.90	81.00	74.15	73.42	90	58	16.6	15.4	4	6	25	28	0	0
Fort Kearney	61.54	73.64	83.48	69.38	72.01	93	54	21.0	18.0	17	29	23	56	23	47
Fort Laramie	62.45	74.25	82.29	73.41	73.10	92	53	18.9	20.1	5	17	22	92	11	48
Fort Atkinson	69.45	74.61	82.32	73.38	74.94	90	62	15.1	12.9	3	5	0	0	18	29
Fort Arbuckle	69.25	79.12	87.41	76.38	78.04	95	59	17.0	19.0	3	3	4	4	9	19
Fort Belknap	69.65	82.14	92.67	75.34	79.95	98	60	18.1	19.9	3	4	0	0	7	7
Phantom Hill	70.61	81.86	90.19	76.12	79.70	98	64	18.3	15.7	8	8	0	0	29	32
Fort Chadbourne	68.52	80.32	89.13	73.68	77.91	96	61	18.1	16.9	8	10	3	3	2	2

MONTH OF AUGUST, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	5	7	25	51	164	1	3	21	53	3.58	3.90	4.87	3.68	4.01	13	18	10	0	4.80	
1	4	2	7	30	64	24	65	22	56	5.25	6.06	6.32	5.26	5.72	19	12	13	0	8.31	
3	7	24	65	18	32	23	36	14	25	3.83	5.25	5.61	4.48	4.79	18	13	8	0	6.20	
8	21	1	2	42	121	1	2	11	37	2.93	4.90	4.41	5.31	4.39	16	15	11	0	5.35	
18	59	30	81	9	23	15	34	8	29	3.48	3.77	4.06	4.90	4.05	13	18	12	0	6.90	
15	23	0	0	49	59	3	5	0	0	3.30	4.00	3.20	4.90	3.85	15	16	11	0	14.55 ?	
2	5	18	34	7	14	32	43	23	38	6.20	6.20	6.40	5.10	5.97	23	8	9	0	4.46	
6	15	10	25	23	55	16	37	24	57	5.06	5.12	4.35	4.93	4.61	20	11	12	0	6.20	
10	19	33	59	9	13	3	3	12	19	3.68	4.19	3.68	5.55	4.27	17	14	12	0	6.39	
0	0	46	112	0	0	42	84	8	16	6.67	7.41	7.32	5.61	6.75	22	9	7	0	2.73	
27	49	0	0	46	56	0	0	16	22	....	....	....	....	....	..	..	4	0	0.53	
8	12	3	3	37	77	5	13	3	7	4.32	5.90	6.48	6.38	5.77	22	9	11	0	2.60	
3	7	2	3	7	14	7	13	9	17	1.16	3.83	4.45	5.25	3.67	16	15	11	0	2.76	
17	48	10	21	8	16	42	88	13	29	7.16	6.25	7.20	7.40	7.00	19	12	11	0	4.38	
18	24	7	12	20	27	10	19	2	5	3.22	3.93	4.80	4.60	4.14	18	13	10	0	4.40	
6	10	14	36	18	43	25	41	6	16	4.25	4.16	4.67	4.12	4.30	15	16	14	0	4.60	
31	83	10	32	25	70	2	7	25	81	3.22	3.45	3.22	4.38	3.57	14	17	17	0	11.54	
23	53	3	5	37	66	2	5	17	32	3.61	3.93	4.03	4.93	4.12	14	17	16	0	4.90	
28	49	20	53	14	42	6	8	16	25	5.58	4.74	3.90	5.77	5.00	19	12	7	0	4.15	
18	49	14	30	3	7	27	35	0	0	5.06	4.29	3.96	4.87	4.55	18	13	11	0	4.30	
23	76	9	28	25	71	3	7	5	10	4.35	3.45	3.46	5.90	4.29	18	13	12	0	6.03	
13	19	4	12	5	6	31	61	12	33	6.09	5.45	3.83	4.45	4.96	21	10	13	0	7.60	
24	44	12	19	21	46	28	46	1	3	4.70	2.63	2.06	5.51	3.72	12	19	17	0	14.30	
22	22	11	11	3	3	45	45	2	2	7.19	7.42	6.42	7.29	7.08	17	14	12	0	6.35	
9	50	13	71	16	66	4	13	14	20	3.06	3.42	3.51	5.45	3.86	15	16	8	0	16.25*	
13	16	0	0	14	22	9	19	9	14	5.54	5.80	4.45	5.83	5.40	19	12	11	0	9.64	
29	65	9	15	24	72	13	21	15	27	2.77	2.29	2.19	4.54	2.95	20	11	10	0	8.54†	
8	11	7	8	7	13	14	21	9	17	5.64	5.70	4.54	7.64	5.88	21	10	9	0	2.26	
28	74	31	78	21	40	3	6	5	10	4.41	4.77	3.06	7.51	4.94	20	11	7	0	4.45	
5	7	8	11	0	0	5	10	1	2	3.87	6.16	6.90	6.45	5.87	21	10	7	0	3.94	
19	24	40	66	1	1	2	2	4	4	4.67	5.71	5.03	6.77	5.54	18	13	6	0	4.99	
9	12	34	70	8	18	8	12	2	4	4.10	5.10	5.40	6.20	5.20	19	12	5	0	2.90	
10	11	9	12	6	9	21	28	8	13	5.41	6.70	7.30	6.77	6.54	23	8	8	0	3.24	
4	5	13	15	12	12	8	14	5	9	7.90	7.29	6.49	2.71	6.10	22	9	9	0	2.12	
6	10	21	31	14	20	16	21	3	4	4.70	5.48	5.22	7.25	5.66	20	11	7	0	3.40	
29	72	12	21	5	16	31	67	11	25	6.74	6.14	5.90	7.64	6.61	22	9	4	0	0.76 ?	
11	27	51	97	10	22	8	14	7	24	6.61	7.00	6.03	7.54	6.80	24	7	10	0	1.37	
24	41	14	22	29	46	8	13	19	27	5.64	7.64	8.74	8.93	7.74	27	4	3	0	0.89	
29	56	12	43	23	88	2	9	8	10	4.00	5.12	5.00	6.48	5.15	19	12	6	0	0.89	Temp. in excess at
31	43	10	21	18	30	3	3	10	11	5.51	6.61	6.06	5.80	6.00	21	10	7	0	4.22	[sunrise & 9 p. m.
32	112	15	66	1	4	0	0	2	2	4.00	4.83	5.19	5.77	4.95	17	14	7	0	1.84	
5	26	0	0	8	40	4	16	45	133	5.16	6.58	5.17	6.61	5.88	21	10	7	0	1.46	
33	84	53	142	11	34	4	8	0	0	6.55	6.77	7.55	7.74	7.15	23	8	6	0	5.10	
28	48	18	48	24	34	10	13	1	1	8.35	8.06	8.12	8.74	8.32	26	5	6	0	4.82	
4	5	45	53	0	0	4	5	0	0	7.87	9.03	8.79	9.23	8.73	28	3	3	0	....	
4	12	74	92	2	2	2	2	4	4	5.80	6.19	7.06	7.80	6.71	26	5	4	0	....	
47	68	38	65	0	0	4	4	7	9	6.06	5.58	4.32	5.84	5.45	19	12	5	0	2.32	

* Two inches added for quantity lost on 23d.

† Five inches added for storm of 23d to 26th, the measurement being lost.

MONTH OF AUGUST, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	70.22	84.16	88.45	75.64	79.62	98	62	18.4	17.6	15	19	17	22	7	12
Fort Graham	73.00	81.35	94.87	78.83	82.01	112	66	30.0	16.0	2	5	10	24	6	6
Fort Croghan	74.12	82.67	91.77	80.51	82.27	98	68	15.7	14.3	1	1	16	43	18	46
San Antonio	80.87	87.25	92.90	84.61	86.41	97	77	10.6	9.4	0	0	0	0	0	0
Fort Mason	73.65	81.00	88.45	79.70	80.70	92	70	11.3	10.7	4	10	4	7	10	20
Fort McKavett	71.48	80.67	90.93	75.54	79.66	96	66	16.3	13.7	0	0	0	0	9	19
Fort Terrett	68.77	81.51	93.70	78.16	80.53	103	62	22.5	18.5	0	0	3	5	15	23
Fort Brown	76.76	86.12	89.87	79.45	83.05	96	74	13.0	9.0	1	2	9	19	5	11
Ringgold Barracks	79.32	85.77	98.90	84.00	87.00	104	74	17.0	13.0	0	0	0	0	17	49
Fort McIntosh	76.84	93.81	101.71	86.07	89.61	106	72	16.4	17.6	1	1	6	11	18	30
Fort Duncan	75.64	90.38	101.09	85.58	88.17	107	72	18.8	16.2	9	26	3	7	42	99
Fort Inge	71.96	82.54	93.32	78.94	81.69	98	68	16.3	13.7	0	0	32	70	40	75
Fort Clarke	73.00	81.81	89.74	77.51	80.51	94	68	13.5	12.5	1	3	7	13	15	35
Fort Fillmore	67.32	81.38	92.96	64.03	76.42	100	58	23.6	18.4	11	18	8	23	2	2
Fort Webster	58.70	74.90	80.45	56.77	67.70	90	48	22.3	19.7	6	10	21	35	25	36
Fort Conrad	65.51	81.06	91.20	74.84	78.15	100	60	21.9	18.1	29	77	4	11	0	0
Albuquerque	......	......	......	......	......	....	....	......	......	10	23	9	22	8	24
Fort Union	51.87	70.16	74.96	61.41	64.60	86	44	21.4	20.6	11	19	1	4	7	11
Fort Massachusetts	......	......	......	......	......	....	....	......	......	4	13	27	86	0	0
Fort Defiance	50.54	71.09	83.32	62.90	66.96	96	43	29.0	24.0	3	5	4	15	2	3
Fort Yuma	78.04	87.82	99.41	87.12	88.10	108	70	19.9	18.1	1	1	2	4	25	40
San Diego	67.74	73.58	79.19	69.48	72.50	87	63	14.5	9.5	3	3	8	10	9	11
Rancho del Chino	62.00	68.51	86.06	69.70	71.57	94	58	22.4	13.6	0	0	2	3	0	0
San Francisco	53.00	58.51	63.41	57.48	58.10	68	50	9.9	8.1	0	0	0	0	0	0
Benicia	57.41	69.03	80.64	64.22	67.82	91	55	23.2	12.8	0	0	0	0	0	0
Fort Miller	62.29	88.58	105.06	79.35	83.82	113	55	29.2	28.8	0	0	1	1	14	18
Fort Reading	62.25	79.90	95.70	77.16	78.75	101	56	22.2	22.8	10	26	1	1	0	0
Fort Orford	56.10	65.92	70.02	58.71	62.69	75	48	12.3	14.7	1	4	0	0	0	0
Fort Steilacoom	53.58	63.96	75.70	62.29	63.88	87	45	23.1	18.9	1	3	16	42	12	19

MONTH OF AUGUST, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
43	86	7	14	8	13	6	9	12	15	4.58	5.64	4.45	6.87	5.38	18	13	7	0	6.41	
15	26	74	97	6	9	1	1	2	3	6.06	6.06	5.96	7.25	6.33	20	11	5	0	3.76	
38	123	17	58	9	27	1	1	4	9	4.16	5.12	4.19	6.16	4.91	19	12	5	0	3.09	
7	18	44	86	74	151	2	3	0	0	1.77	6.00	6.03	7.03	5.21	23	8	4	0	1.75	
30	69	31	89	10	25	4	8	8	11	5.87	5.88	4.44	7.13	6.08	18	13	7	0	1.54	
53	70	44	64	20	34	0	0	0	0	6.64	6.16	5.84	7.13	6.44	21	10	6	0	0.85	
127	160	0	0	0	0	0	0	0	0	5.61	5.83	6.93	5.32	5.92	23	8	5	0	1.61	
47	84	20	47	32	68	7	18	4	8	7.41	7.12	6.77	7.35	7.16	27	4	6	0	3.90	
68	223	29	106	0	0	0	0	0	0	7.38	7.32	5.00	9.12	7.21	26	5	4	0	1.44	
91	172	3	4	1	2	0	0	0	0	7.26	7.03	5.48	8.16	6.98	28	3	3	0	0.23	
61	137	0	0	0	0	0	0	1	1	9.19	8.54	9.22	9.28	9.11	30	1	2	0	0.32	
7	14	1	1	0	0	2	3	0	0	3.61	4.61	6.29	8.29	5.70	21	10	1	0	0.12	
77	183	0	0	1	1	3	4	2	2	4.70	3.96	5.55	6.74	5.24	20	11	5	0	0.87	Last 27 days.
32	49	34	48	22	35	2	6	8	26	7.48	7.29	7.61	8.00	7.59	27	4	5	0	1.00	
16	23	8	15	15	24	23	26	1	2	8.03	8.96	7.22	7.54	7.94	24	7	10	0	4.29	
0	0	14	37	5	12	12	32	1	2	5.71	7.80	5.88	5.51	6.22	24	7	5	0	1.32	
7	21	10	17	12	24	25	28	9	27	4.51	5.80	4.70	4.19	4.80	18	13	10	0	4.06	
8	18	9	14	10	24	14	25	31	63	5.90	6.22	4.58	6.19	5.72	22	9	10	0	5.49	
1	3	5	6	33	103	4	12	47	90	6.19	5.90	4.41	5.22	5.43	22	9	14	0	....*	*Not measured, quantity large.
0	0	5	8	38	51	61	78	10	25	7.41	6.09	4.58	3.70	5.44	23	8	5	0	1.30	
10	26	38	120	5	12	18	29	0	0	7.20	7.29	8.77	8.19	7.86	24	7	2	0	0.33	
10	11	16	19	46	89	25	35	3	3	0.61	5.00	6.77	5.38	4.44	19	12	1	0	0.40	
5	9	0	0	103	218	9	13	2	3	3.61	5.41	7.61	7.32	6.00	22	9	1	0	....	
0	0	1	2	4	12	13	62	107	483	1.61	2.58	5.58	3.93	3.42	12	19	0	0	0.00	
0	0	0	0	11	37	109	366	0	0	7.19	7.48	8.32	8.70	7.92	28	3	0	0	0.00	
9	11	7	9	33	49	4	6	1	1	9.67	9.58	9.48	9.87	9.65	30	1	0	0	0.00	
6	10	17	27	3	4	5	7	8	20	8.87	9.16	8.83	9.06	8.98	30	1	0	0	0.00	
48	121	0	0	0	0	0	0	80	302	6.01	6.00	7.03	7.64	6.67	23	8	2	0	1.00	
4	5	3	8	17	47	24	56	41	97	2.38	2.87	3.80	4.41	3.37	10	21	10	0	1.78	

MONTH OF SEPTEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	51.70	60.80	63.66	54.73	57.72	76	36	18.3	21.7	17	60	16	43	3	8
Fort Preble	53.30	61.60	64.83	56.73	59.11	82	38	22.9	21.1	30	96	1	3	0	0
Fort Constitution	53.13	59.60	67.10	55.76	58.90	84	34	25.1	24.9	40	78	7	13	8	23
Fort Independence	56.53	62.23	72.40	60.50	62.91	88	42	25.1	20.9	4	12	20	66	1	3
Fort Adams	59.56	63.70	68.36	63.43	63.76	80	44	16.2	19.8	39	170	1	4	6	14
Fort Trumbull	58.63	62.63	70.13	62.10	63.37	82	47	18.6	16.4	0	0	27	71	0	0
Fort Hamilton	60.10	66.30	75.70	68.50	67.60	86	46	18.4	21.6	34	91	8	19	3	7
Fort Columbus	58.33	63.20	70.63	62.93	63.77	84	45	20.2	18.8	16	25	18	27	0	0
West Point	54.80	62.00	69.27	61.17	61.78	85	42	23.2	19.8	36	69	2	4	0	0
Watervliet Arsenal	65.53	71.50	76.60	67.96	70.40	89	42	18.6	28.4	7	14	3	6	0	0
Fort Ontario	51.96	59.90	67.30	57.86	59.26	92	37	32.7	22.3	0	0	27	36	0	0
Fort Niagara	54.16	61.40	67.50	59.87	60.73	85	44	24.3	16.7	2	11	2	2	10	28
Alleghany Arsenal	53.86	62.83	71.26	60.36	62.08	86	42	23.9	20.1	27	38	8	9	6	9
Carlisle Barracks	51.70	63.07	71.43	59.03	61.31	86	34	24.7	27.3	9	31	8	16	22	50
Fort Mifflin	58.63	68.80	78.00	64.90	67.58	95	46	27.4	21.6	16	27	16	22	9	12
Fort McHenry	60.30	65.53	72.00	65.60	65.86	86	50	20.1	15.9	21	49	14	44	8	11
Fort Washington	58.68	69.00	78.15	63.70	67.38	94	44	26.6	23.4	13	47	21	73	2	5
Fort Monroe	66.80	69.50	74.40	70.10	70.20	86	57	15.8	13.2	4	6	35	96	3	8
Fort Moultrie	70.50	77.83	79.00	75.70	75.76	86	61	10.2	14.8	18	38	50	121	21	35
Fort Pierce	74.90	83.10	83.90	77.86	79.94	89	70	19.1	9.9	4	10	15	47	63	202
Key West Barracks	79.13	83.13	84.53	81.50	82.07	87	76	4.9	6.1	2	4	32	121	16	51
Fort Myers	78.56	82.23	88.76	82.03	82.89	94	72	11.1	10.9	12	21	21	50	36	89
Fort Brooke	74.25	78.92	84.80	78.20	79.04	91	72	11.9	7.1	0	0	70	114	16	26
Fort Meade	72.30	80.66	86.36	75.86	78.80	92	68	13.2	20.8	13	16	9	10	50	56
Barrancas Barracks	72.23	78.96	83.56	76.63	77.85	89	59	11.2	18.8	35	82	8	22	3	14
Mount Vernon Arsenal	72.60	78.90	87.56	77.00	79.01	95	62	16.0	17.0	19	35	43	57	27	49
East Pascagoula	74.20	82.21	88.08	79.06	80.89	100	63	19.1	17.9	30	47	9	14	3	8
Baton Rouge Barracks	67.53	78.33	83.63	70.96	75.11	89	54	13.9	21.1	30	46	25	48	35	63
Fort Towson	62.00	67.30	75.50	67.90	68.17	84	50	15.8	18.2	8	18	6	11	5	10
Fort Washita	61.63	70.30	78.60	68.56	69.77	90	50	20.2	19.8	21	48	14	33	9	23
Fort Smith	62.43	67.10	77.16	69.53	69.06	88	48	18.9	21.1	17	31	22	33	29	35
Fort Gibson	61.93	70.66	77.93	66.90	69.36	90	47	20.6	22.4	12	15	3	7	18	21
Fort Scott	58.77	67.60	75.95	66.40	67.17	91	42	23.8	25.2	14	26	17	29	5	5
Jefferson Barracks	61.43	68.80	74.93	66.10	67.81	89	46	21.2	21.8	14	19	3	8	5	7
St. Louis Arsenal	59.50	67.53	78.00	64.56	67.40	93	45	25.6	22.8	10	17	5	12	9	4
Newport Barracks	59.53	65.03	72.20	66.40	65.79	86	48	20.2	17.8	3	4	37	50	12	16
Fort Mackinac	49.90	57.73	61.20	51.70	55.13	80	30	24.9	25.1	18	41	3	4	4	9
Fort Brady	......	......	......	......	......	....	....	......	......	6	18	4	10	11	19
Fort Ripley	45.70	55.26	63.16	49.66	53.43	85	27	31.6	26.4	12	24	12	26	3	4
Fort Snelling	42.46	53.10	65.16	56.06	54.20	86	30	31.8	24.2	15	29	33	55	3	6
Fort Dodge	58.90	63.70	71.53	68.66	65.70	85	46	19.3	19.7	6	9	15	21	6	9
Fort Leavenworth	55.27	63.03	72.10	63.30	63.42	84	39	21.6	24.4	2	3	23	41	0	0
Fort Kearney	48.30	59.60	70.90	56.26	58.77	86	27	27.2	31.8	21	47	27	63	5	7
Fort Laramie	48.37	57.37	70.43	58.13	58.57	92	28	33.4	30.6	18	54	24	77	7	27
Fort Atkinson	58.73	63.50	70.80	64.70	64.43	85	40	20.6	24.4	11	29	22	61	5	8
Fort Arbuckle	60.80	69.80	78.36	67.23	69.05	89	44	20.0	25.0	4	6	5	6	12	16
Fort Belknap	61.89	73.64	82.89	67.50	71.48	93	47	21.5	24.5	26	39	3	6	16	26

MONTH OF SEPTEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	19	7	27	20	67	8	20	30	92	3.90	4.70	4.46	5.30	4.59	18	12	11	0	3.40	
7	17	13	37	17	40	8	24	35	89	5.36	5.63	6.10	5.66	5.69	19	11	10	0	3.42	
6	19	15	30	18	31	9	17	18	35	5.23	5.93	6.60	6.70	6.12	22	8	8	0	2.71	
5	10	1	3	35	118	8	27	21	68	3.00	6.00	5.90	6.29	5.30	18	12	6	0	1.60	
1	4	46	137	8	18	13	42	4	18	5.30	5.65	4.73	6.63	5.57	16	14	7	0	2.55	
4	13	0	0	57	124	1	1	22	42	5.50	6.00	5.80	5.50	5.70	20	10	8	0	5.22	
9	28	20	68	15	37	9	24	13	24	7.80	7.00	7.43	7.00	7.31	23	7	6	0	1.99	
2	2	14	26	22	46	10	21	32	78	7.76	8.10	7.20	8.00	7.76	25	5	5	0	2.29	
5	6	37	71	5	6	4	7	31	69	5.77	6.30	5.63	7.00	6.17	22	8	6	0	2.39	
0	0	62	196	0	0	43	100	11	30	6.46	7.96	7.53	6.10	7.01	25	5	4	0	2.67	
34	51	0	0	43	100	0	0	13	32	6.66	7.06	8.03	6.70	7.11	26	4	9	0	3.31	
5	8	7	15	28	88	37	128	4	22	4.60	5.60	6.50	5.76	5.59	19	11	12	0	5.06	
5	7	11	29	9	37	7	22	4	9	1.83	5.13	4.90	6.00	4.47	15	15	12	0	3.09	
8	20	13	27	10	16	26	66	20	47	8.17	8.73	8.43	8.16	8.37	18	13	6	0	1.45	
28	34	18	22	12	15	3	4	11	14	5.50	5.80	6.60	5.70	5.90	20	10	4	0	1.40	
6	16	8	14	8	20	25	49	11	30	5.63	5.90	6.03	5.90	6.11	21	9	6	0	2.20	
25	75	4	13	17	59	3	12	22	89	5.23	5.83	5.53	7.00	5.90	24	6	7	0	1.75	
15	26	2	2	27	68	0	0	14	28	4.27	4.28	4.21	6.07	4.71	16	14	8	0	1.55	
13	25	5	13	6	7	3	3	3	4	4.26	4.06	3.80	5.60	4.43	14	16	10	0	11.70	
9	25	10	13	4	8	9	22	3	5	3.70	4.23	4.16	5.40	4.37	15	15	9	0	7.00	
33	101	8	26	6	15	3	9	9	29	4.60	4.70	5.13	5.66	5.02	19	11	9	0	6.22	
15	30	4	14	0	0	4	7	5	10	5.56	5.40	4.33	4.73	5.01	16	14	16	0	9.54	
24	57	2	3	1	2	2	9	5	10	5.83	4.70	2.80	7.33	5.17	17	13	13	0	10.00	
7	9	17	20	0	0	22	29	1	1	4.23	6.20	4.63	6.63	5.42	20	10	11	0	6.60	
24	111	8	26	7	31	2	7	9	16	1.60	5.56	5.73	6.33	4.81	17	13	6	0	0.65	
14	26	6	14	3	4	5	10	6	17	5.66	5.46	5.30	7.10	5.88	20	10	4	0	0.70	
25	62	19	44	6	16	4	5	17	37	2.90	3.06	2.73	4.76	3.36	11	19	2	0	0.65	
7	13	3	6	3	4	5	7	8	17	5.06	5.26	4.33	7.13	5.45	20	10	10	0	3.30	
4	5	7	16	0	0	8	16	2	4	3.60	4.00	4.30	4.50	4.10	5	7	2	0	....	Last 12 days.
18	49	26	69	11	26	2	4	13	33	4.30	4.23	3.16	6.03	4.43	15	15	5	0	6.43	
5	9	5	10	6	8	3	4	7	16	2.73	5.73	4.70	6.43	4.90	16	14	9	0	3.90	
25	31	14	21	4	4	0	0	12	16	5.30	5.06	4.46	6.46	5.32	18	12	8	0	4.38	
12	18	25	50	11	34	13	19	7	12	5.70	6.10	4.90	6.70	5.85	20	10	8	0	2.40	
17	23	10	14	7	9	25	48	18	39	5.06	6.80	6.66	5.90	6.11	23	7	5	0	2.97	
2	4	13	17	3	3	20	34	7	17	7.60	8.03	7.33	3.00	6.49	22	8	5	0	1.14	
7	10	26	33	7	10	12	24	10	25	4.23	4.63	5.56	6.63	5.26	18	12	11	0	3.30	
15	40	9	20	7	27	36	111	21	65	5.20	5.76	5.73	5.73	5.60	18	12	5	1	1.40	
8	21	12	21	20	56	25	81	6	14	3.70	4.60	4.60	4.96	4.47	16	14	8	1	....	
16	40	32	80	8	22	16	39	18	42	5.06	5.00	4.73	5.46	5.06	17	13	11	1	6.40	
13	24	2	2	24	50	9	16	21	35	6.93	7.73	8.03	8.80	7.87	22	8	5	0	0.72	
5	23	7	31	26	118	12	47	32	64	4.23	4.53	3.36	5.70	4.46	15	15	9	0	2.51	Temp. in excess.
11	29	7	25	32	59	3	3	25	51	5.86	6.76	5.43	5.76	5.95	18	12	6	0	1.61	
26	85	20	87	2	4	1	1	9	18	5.30	5.40	6.20	6.50	5.85	19	11	7	0	2.17	
3	14	0	0	1	7	2	4	27	85	5.07	4.93	4.73	5.10	4.96	17	13	9	0	2.74	
22	26	28	90	8	23	7	11	4	7	6.23	5.83	6.56	7.70	6.46	21	9	4	0	3.85	
22	54	20	46	16	32	13	17	7	12	7.46	7.26	7.96	9.20	7.97	25	5	6	0	5.04	
4	9	23	33	7	9	5	5	0	0	5.76	6.63	6.83	8.16	6.84	24	6	5	0	....	

MONTH OF SEPTEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Phantom Hill..........	64.10	72.50	82.70	68.86	72.04	92	49	20.0	29.0	18	32	4	10	7	9
Fort Chadbourne.......	60.40	71.27	80.33	65.77	69.44	90	44	20.6	25.4	12	26	5	17	1	2
Fort Worth...........	61.43	71.90	81.36	70.40	71.27	89	50	17.7	21.3	20	28	33	43	10	11
Fort Graham..........	65.03	74.60	84.83	70.73	73.80	94	52	20.2	21.8	11	33	15	37	6	13
Fort Croghan..........	67.26	74.83	83.53	73.00	74.66	91	51	16.3	23.7	6	22	33	83	30	75
San Antonio...........	73.86	79.16	86.13	78.00	79.29	94	64	14.7	15.3	1	2	47	100	17	39
Fort Mason	67.40	72.50	80.00	72.70	73.15	89	54	15.9	19.1	15	45	13	29	12	26
Fort McKavett	62.33	72.60	80.83	69.00	71.19	93	41	21.8	30.2	12	18	8	11	10	11
Fort Terrett...........	63.70	73.76	84.86	70.46	73.19	95	40	21.8	33.2	3	5	3	5	7	10
Fort Ewell............	68.26	81.93	92.40	75.46	79.54	102	54	22.5	25.5	10	15	19	35	17	23
Fort Brown............	72.37	87.53	85.77	75.53	80.30	92	64	11.7	16.3	4	8	27	56	29	63
Ringgold Barracks.....	75.10	82.86	89.40	79.36	81.68	98	67	16.3	14.7	3	11	11	32	40	94
Fort McIntosh.........	71.87	85.03	91.73	80.01	82.16	101	62	18.8	20.2	7	11	27	42	16	27
Fort Duncan..........	69.93	82.26	92.16	78.50	80.71	104	55	23.3	25.7	12	34	5	12	45	115
Fort Inge.............	66.83	77.86	84.16	72.36	75.30	91	50	15.7	25.3	4	13	47	98	29	65
Fort Clarke	68.40	76.23	82.60	71.96	74.80	90	58	15.2	16.8	15	33	3	4	33	66
Fort Fillmore..........	65.70	76.83	86.76	67.80	74.27	92	58	17.7	16.3	4	9	4	11	22	69
Fort Webster..........	53.46	66.66	72.13	53.66	61.48	80	46	18.5	15.5	12	20	12	18	25	44
Fort Conrad...........	55.13	55.17	81.47	66.73	68.62	90	41	21.4	27.6	16	45	11	32	0	0
Albuquerque...........	......	......	......	......	......	....	....	......	......	4	9	15	37	23	39
Fort Union............	43.70	60.80	68.05	53.20	56.44	82	30	25.6	26.4	10	15	4	5	4	9
Santa Fé..............	50.20	61.80	70.10	56.13	59.56	80	34	20.4	25.6	21	27	12	30	10	30
Fort Massachusetts.....	35.55	53.10	61.30	44.75	48.67	89	24	40.3	24.7	5	15	30	97	0	0
Fort Defiance	42.30	61.10	72.10	52.60	57.02	82	31	25.0	26.0	3	14	8	14	1	2
Fort Yuma............	74.06	84.30	95.07	80.77	83.55	104	60	20.5	23.5	26	53	2	5	20	31
San Diego.............	65.63	76.23	82.70	69.70	73.57	93	49	19.4	24.6	1	1	9	9	21	24
San Francisco	53.16	59.56	64.83	56.46	58.50	90	47	31.5	13.5	1	1	0	0	0	0
Benicia	56.83	70.06	80.03	65.00	67.98	93	50	25.0	18.0	0	0	0	0	4	7
Fort Miller............	61.20	84.83	101.23	78.53	81.45	114	50	32.5	31.5	8	23	10	17	17	23
Fort Reading..........	55.53	72.60	90.73	70.46	72.33	108	39	35.7	32.3	26	66	3	6	0	0
Fort Orford	53.07	63.10	68.25	52.31	59.18	92	40	32.8	19.2	0	0	1	2	0	0
Fort Steilacoom	44.56	58.56	69.83	55.40	57.06	85	28	27.9	29.1	8	32	14	49	20	31

MONTH OF SEPTEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	13	89	102	1	1	9	9	5	6	4.30	5.46	6.56	7.03	5.84	21	9	7	0	4.82	
32	64	40	83	3	5	1	1	10	15	2.80	3.73	4.13	5.60	4.07	14	16	7	0	4.01	
30	56	3	5	2	4	0	0	24	29	3.16	3.70	3.73	7.30	4.47	15	15	6	0	5.60	
27	56	24	51	16	38	9	19	3	4	4.86	4.43	4.23	7.73	5.31	18	12	6	0	1.53	
34	109	1	5	1	2	2	3	2	2	3.50	3.56	4.33	6.40	4.45	16	14	8	0	5.96	
2	5	6	15	34	61	0	0	0	0	1.56	4.63	5.36	7.23	4.69	20	10	7	0	3.49	
19	45	27	71	4	10	3	3	4	12	3.03	2.97	4.70	6.53	4.31	16	14	6	0	4.70	
19	30	70	85	3	3	1	1	2	4	4.90	5.16	5.46	6.53	5.51	18	12	10	0	3.42	
107	168	0	0	0	0	0	0	3	7	3.70	4.60	6.20	4.66	4.79	21	9	7	0	5.72	
39	89	11	33	1	2	2	3	1	2	4.99	5.00	5.70	8.20	5.72	22	8	7	0	....	
45	90	4	6	4	11	4	8	2	5	5.30	5.57	5.20	5.37	5.36	21	9	6	0	8.50	
18	47	21	54	1	3	0	0	6	10	6.43	5.96	4.23	7.66	6.07	23	7	8	0	4.24	
56	116	3	3	1	1	0	0	7	13	4.17	3.87	4.47	7.23	4.93	18	12	6	0	2.06	
47	175	0	0	0	0	0	0	5	27	6.93	7.10	8.23	8.43	7.67	26	4	5	0	6.10	
18	42	0	0	0	0	0	0	3	6	4.56	5.30	5.70	7.16	5.68	23	7	7	0	2.83	
43	102	20	52	2	2	3	4	2	6	3.30	3.26	4.10	6.80	4.37	17	13	9	0	3.50	
12	22	21	42	6	11	2	8	3	9	7.23	7.46	6.40	5.93	6.76	25	5	9	0	1.47	
12	20	26	39	7	10	17	27	5	8	7.83	8.26	7.16	8.40	7.91	26	4	8	0	3.47	
1	1	25	60	15	38	12	20	1	1	7.43	7.83	6.77	7.76	7.52	27	3	5	0	1.10	
38	92	15	23	1	1	15	21	1	2	6.30	6.73	6.13	5.43	6.15	27	3	5	0	0.19	
15	34	7	9	13	26	5	11	34	50	5.80	6.46	5.96	5.63	5.96	27	3	7	0	3.04	
5	15	3	9	26	48	7	14	13	25	7.46	7.36	5.73	7.36	6.98	27	3	6	0	0.91	
7	20	13	36	39	110	5	17	22	67	5.73	6.10	5.53	6.13	5.87	22	8	5	3	....	Temp. for the last 20
4	6	1	1	18	28	53	69	31	78	6.43	6.13	5.16	5.26	5.74	22	8	5	0	1.82	[days only.
4	11	27	69	10	26	20	30	2	5	7.83	8.03	7.13	8.40	7.85	24	6	3	0	1.45	
7	9	14	19	39	74	21	26	5	7	4.26	7.13	8.06	7.43	6.72	23	7	0	0	0.00	
1	1	3	4	3	9	10	27	102	426	4.43	4.93	8.03	5.33	4.93	15	15	0	0	0.00	
0	0	0	0	13	60	93	332	1	3	4.60	5.30	6.30	5.90	5.52	19	11	1	0	0.01	
14	22	5	8	13	26	13	29	5	11	9.66	9.86	9.63	9.70	9.64	30	0	2	0	0.07	
2	4	7	16	3	4	2	2	14	26	8.76	8.80	8.56	9.10	8.80	28	2	0	0	0.00	
11	25	5	6	11	16	0	0	80	221	6.40	6.80	7.30	8.60	7.27	26	4	3	0	....	
26	48	1	1	15	53	7	15	22	52	3.30	3.90	4.96	4.00	4.05	17	13	8	0	1.02	

MONTH OF OCTOBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	43.00	49.67	51.77	45.89	47.59	63	29	15.4	18.6	11	34	28	104	0	0
Fort Preble	43.58	49.41	52.48	47.16	48.16	62	25	13.8	23.2	21	70	31	100	8	25
Fort Constitution	42.93	48.67	55.96	45.35	48.23	68	28	19.8	20.2	31	70	26	72	14	34
Fort Independence	47.10	51.00	59.16	50.00	51.81	72	34	20.2	17.8	12	30	34	133	5	24
Fort Adams	50.97	53.93	58.51	55.06	54.62	70	37	15.4	17.6	32	148	10	57	6	24
Fort Trumbull	50.30	54.40	60.00	53.80	54.63	72	34	17.4	20.6	0	0	58	161	0	0
Fort Hamilton	51.74	58.90	65.77	58.48	58.72	74	42	15.3	16.7	32	59	5	7	8	17
Fort Columbus	50.93	54.83	60.67	56.03	55.61	72	39	16.4	16.6	13	18	31	53	2	2
West Point	47.16	53.80	59.71	53.58	53.56	71	32	17.5	21.5	28	71	3	9	0	0
Watervliet Arsenal	51.87	57.41	63.58	53.54	56.60	78	27	21.4	29.6	6	18	8	25	0	0
Fort Ontario	44.93	51.38	55.41	49.22	50.24	68	30	17.8	20.2	0	0	33	68	0	0
Fort Niagara	47.45	53.22	56.64	50.29	51.90	64	36	12.1	15.9	6	36	6	24	24	63
Alleghany Arsenal	50.16	57.41	68.22	53.09	57.22	79	34	21.8	23.2	20	35	9	13	6	10
Carlisle Barracks	47.03	56.30	64.30	54.90	55.63	84	29	28.4	26.6	16	28	2	3	35	73
Fort Mifflin	50.20	60.70	68.10	56.11	58.80	86	31	27.2	27.8	0	0	14	28	3	6
Fort McHenry	52.38	58.00	65.16	57.51	58.26	79	36	20.7	22.3	30	63	11	41	0	0
Fort Washington	53.00	60.45	71.87	57.22	60.64	92	39	31.4	21.6	21	73	18	50	2	5
Fort Monroe	59.24	62.10	69.10	63.13	63.39	86	48	22.6	15.4	8	23	20	51	5	14
Fort Moultrie	64.25	71.00	76.87	70.03	70.54	87	49	16.5	21.5	30	48	19	39	5	10
Fort Pierce	68.93	77.66	81.22	75.45	75.81	88	54	12.2	21.8	10	29	27	115	55	224
Key West Barracks	76.58	80.09	81.84	79.00	79.38	86	72	7.6	7.4	0	0	52	214	26	126
Fort Myers	73.29	76.58	85.32	78.41	78.40	93	67	14.6	11.3	35	130	15	45	9	19
Fort Brooke	71.12	76.14	82.19	74.85	76.07	85	62	8.9	14.1	6	15	65	97	5	9
Fort Meade	64.48	76.54	82.55	71.70	73.82	90	50	16.2	23.8	43	62	7	11	42	51
Barrancas Barracks	64.06	73.29	79.09	68.96	71.35	86	52	14.7	19.3	38	100	3	6	2	10
Mount Vernon Arsenal	62.61	71.22	79.45	69.06	70.58	92	43	21.4	27.6	17	39	25	46	15	28
New Orleans Barracks	67.28	74.55	82.90	72.25	74.25	96	55	21.8	19.2	24	41	7	17	23	42
Baton Rouge Barracks	59.25	71.41	78.74	63.90	68.32	86	45	17.7	23.3	18	28	19	30	48	85
Fort Towson	58.40	64.80	76.30	64.70	66.05	86	36	20.0	30.0	21	36	8	13	13	25
Fort Washita	56.41	65.09	74.67	63.41	64.90	86	36	21.1	28.9	13	31	8	23	3	8
Fort Smith	57.60	60.22	72.70	63.80	63.58	85	41	21.4	22.6	16	29	21	33	13	18
Fort Gibson	57.03	63.93	72.87	62.00	63.96	84	34	20.0	30.0	0	0	1	4	0	0
Fort Scott	54.30	61.20	70.60	59.50	61.40	86	32	24.6	29.4	12	22	7	17	2	2
Jefferson Barracks	56.60	62.26	71.16	65.58	63.90	89	38	25.1	25.9	10	16	12	19	8	11
St. Louis Arsenal	52.78	59.77	69.51	57.58	59.91	87	41	27.1	18.9	10	34	3	6	9	10
Newport Barracks	55.12	59.16	67.67	59.80	60.44	83	38	22.6	22.4	10	14	11	18	15	18
Fort Mackinac	41.84	48.87	49.83	43.32	45.97	67	27	21.0	19.0	14	24	0	0	11	35
Fort Brady	......	......	......	......	......	....	....	......	.....	4	10	8	15	35	58
Fort Ripley	36.58	44.29	55.74	43.45	45.01	72	20	27.0	25.0	19	34	11	19	5	7
Fort Snelling	41.74	52.03	63.70	55.06	53.13	83	30	29.9	23.1	10	19	33	59	3	6
Fort Dodge	54.97	58.19	66.61	60.77	60.13	82	38	21.9	22.1	15	17	16	30	3	12
Fort Leavenworth	50.87	56.38	66.35	59.93	58.38	86	32	27.6	26.4	2	3	24	46	0	0
Fort Kearney	41.03	57.54	65.90	48.93	53.35	80	27	26.7	26.3	33	73	22	48	6	11
Fort Laramie	41.42	47.29	60.94	48.61	49.56	78	21	28.4	28.6	17	53	20	52	10	28
Fort Atkinson	47.74	54.93	65.00	57.87	56.38	79	30	22.6	26.4	27	89	16	61	5	6
Fort Arbuckle	55.38	65.63	70.61	60.83	63.11	85	36	21.9	27.1	5	5	1	1	5	5
Fort Belknap	56.97	70.17	74.24	63.20	66.15	88	38	21.9	28.1	12	19	1	1	5	5

MONTH OF OCTOBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	25	1	3	27	72	15	46	35	109	2.61	4.48	3.65	3.16	3.48	11	20	14	0	3.50	
7	21	7	23	19	46	16	36	15	37	5.32	5.87	5.58	4.90	5.42	14	17	16	0	5.30	
2	6	9	19	13	25	11	20	12	42	2.90	3.96	4.16	5.16	4.04	15	16	10	0	2.92	
6	18	0	0	20	66	6	21	13	49	1.87	3.61	3.96	5.00	3.61	15	16	7	0	1.42	
4	12	36	98	5	13	23	79	7	36	3.64	3.84	3.35	4.06	3.72	14	17	8	0	2.60	
2	4	0	0	44	81	0	0	14	24	3.30	4.10	4.00	4.00	3.85	15	16	11	0	5.79?	
12	17	12	34	7	13	16	44	21	43	6.25	6.45	6.00	6.12	6.20	19	12	10	0	2.25	
12	14	3	6	19	27	16	18	24	56	5.55	5.64	4.93	6.58	5.17	19	12	8	0	2.06	
5	11	38	54	13	19	0	0	29	74	3.48	3.58	4.58	4.51	4.04	15	16	11	0	2.99	
3	7	60	204	0	0	38	117	7	28	4.96	6.19	5.80	4.83	5.45	21	10	9	0	2.67	
51	80	0	0	14	16	0	0	21	73	6.25	6.41	6.77	4.87	6.07	19	12	11	0	4.80	
11	24	4	11	10	30	36	91	19	57	4.03	4.16	4.39	3.80	4.09	14	17	11	0	3.30	
10	12	11	35	14	42	15	33	9	24	1.38	2.90	5.09	5.32	3.67	12	19	13	0	2.24	
6	9	10	15	9	16	27	62	16	47	....	....	....	....	....	16	15	6	0	1.64	
6	9	0	0	4	8	0	0	2	2	5.20	5.60	5.70	5.10	5.40	20	11	5	0	3.30	
8	20	11	24	8	19	28	47	15	43	4.19	4.96	5.35	4.87	4.84	15	16	6	0	2.60	
19	53	10	25	30	77	7	22	17	53	3.77	4.67	5.58	6.12	5.04	18	13	4	0	2.20	
6	12	6	10	39	74	5	15	20	47	5.13	5.26	5.28	6.17	5.46	22	9	4	0	1.92	
9	24	14	30	20	42	14	22	10	12	7.29	7.35	7.58	8.06	7.57	24	7	5	0	1.20	
8	26	16	35	0	0	1	2	3	4	3.76	5.12	4.38	5.54	4.70	18	13	3	0	0.60	
15	48	16	37	2	2	0	0	0	0	5.71	6.29	6.03	6.93	6.24	24	7	8	0	4.18	
6	15	1	5	0	0	17	22	12	36	6.90	7.16	6.61	7.12	6.95	19	12	3	0	0.40	
14	28	3	6	6	8	14	20	13	21	8.06	7.09	4.58	8.90	7.16	26	5	2	0	0.30	
3	3	6	6	1	1	12	13	3	3	1.77	7.06	6.45	7.09	5.59	26	5	3	0	1.32	
22	110	8	39	15	54	2	8	25	54	1.90	5.09	5.00	7.13	4.78	17	14	3	0	1.10	
27	66	7	19	6	15	5	11	14	34	7.74	6.58	5.93	8.16	7.10	24	7	4	0	2.40	
16	41	10	22	10	25	4	8	11	24	4.11	4.11	3.73	5.76	4.43	13	13	5	0	3.83	26 days; 16 at East [Pascagoula, and [the last 10 at New [Orleans.
5	6	5	10	0	0	18	23	7	15	5.38	6.19	4.93	7.32	5.96	21	10	5	0	2.81	
21	38	16	35	4	12	9	16	13	27	4.00	4.20	5.60	6.50	5.08	16	15	6	0	4.88	
13	35	48	126	22	54	7	17	5	6	5.41	5.00	4.83	5.93	5.29	16	15	6	0	5.95	
8	13	6	12	6	16	13	29	7	12	1.32	4.32	5.60	6.16	4.35	17	14	8	0	4.89	
6	17	8	22	1	3	0	0	0	0	5.16	5.45	5.64	5.96	5.55	18	13	8	0	5.50	
4	6	24	54	36	84	14	20	6	10	4.70	4.20	3.90	5.40	4.55	15	16	9	0	6.23	
18	38	12	14	15	20	32	50	4	5	3.84	5.09	6.51	3.55	4.75	20	11	12	0	4.81	
9	13	20	31	13	22	21	42	10	20	....	....	....	....	....	18	13	9	0	4.73	
12	13	27	37	11	29	21	36	11	24	2.74	5.06	5.54	6.45	4.95	18	13	8	0	2.65	
14	49	17	39	10	26	22	62	27	90	4.09	3.67	3.61	3.58	3.74	13	18	11	1	3.94	
8	16	9	13	15	35	11	29	9	22	3.23	3.21	3.23	4.50	3.54	12	19	13	1	4.11	
11	21	25	58	21	46	11	29	12	23	4.53	4.39	5.00	5.50	4.86	14	17	9	0	1.27	
12	22	8	16	29	42	5	9	23	39	6.82	7.41	8.45	8.61	7.82	28	3	3	0	0.82	
12	55	3	15	24	92	12	18	26	30	2.38	2.83	2.38	2.74	2.83	14	17	10	0	4.10	Therm. protected.
19	27	3	9	42	89	4	5	23	36	3.48	4.70	3.29	4.35	3.96	12	19	7	0	2.64	
15	26	14	47	11	26	4	4	8	15	4.38	4.74	4.74	5.96	4.96	17	14	5	1	1.35	
6	25	0	0	2	12	3	15	38	148	4.35	5.42	5.65	6.39	5.45	17	14	6	1	1.70	
9	25	23	64	18	59	12	17	2	3	5.87	6.06	5.22	6.70	5.96	20	11	3	2	6.81	
8	17	28	59	14	22	21	27	18	30	6.74	7.16	7.48	7.25	7.16	23	8	8	0	7.16	
6	12	6	11	32	44	9	13	6	15	6.64	7.16	6.90	8.19	7.22	23	8	6	0	5.90	

MONTH OF OCTOBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Phantom Hill..........	55.03	65.06	74.45	62.12	64.16	88	40	23.8	24.2	15	21	0	0	11	13
Fort Chadbourne.......	51.90	64.74	76.35	59.29	63.07	87	32	23.9	31.1	4	4	4	7	4	5
Fort Worth	55.20	67.90	76.19	63.16	65.61	89	38	23.4	27.6	8	11	17	32	0	0
Fort Graham..........	57.34	68.61	80.45	65.32	67.93	88	40	20.1	27.9	8	24	6	12	8	19
Fort Croghan..........	59.22	68.77	78.64	65.93	68.14	89	40	20.9	28.1	10	29	8	19	7	15
San Antonio...........	66.64	72.54	79.58	71.41	72.54	90	49	17.5	23.5	0	0	18	30	0	0
Fort Mason	62.32	66.84	75.13	68.81	68.27	87	45	18.7	23.3	9	19	0	0	1	1
Fort McKavett	56.45	65.16	74.42	61.13	64.29	89	32	24.7	32.3	3	7	7	20	19	25
Fort Terrett...........	56.77	69.09	76.67	63.51	66.51	87	32	20.5	34.5	3	9	3	5	5	5
Fort Ewell.............	61.67	74.09	89.41	68.36	73.38	99	40	25.6	33.4	17	23	14	28	17	25
Fort Brown	68.64	83.90	82.25	73.58	77.09	92	50	14.9	27.1	22	52	17	40	41	104
Ringgold Barracks.....	68.61	75.16	84.25	73.87	75.47	97	47	21.5	28.5	13	33	7	11	18	32
Fort McIntosh.........	64.03	77.29	86.48	72.81	75.15	96	43	20.9	32.1	7	9	15	20	11	15
Fort Duncan..........	60.77	75.61	84.93	69.12	72.61	99	38	26.4	28.6	21	67	8	13	25	73
Fort Inge.............	58.09	71.35	80.19	63.67	68.32	92	36	23.7	32.3	2	2	23	34	30	64
Fort Clarke............	60.80	70.03	78.38	64.64	68.46	88	41	19.5	27.5	20	43	4	5	20	43
Fort Fillmore..........	44.90	61.48	73.09	56.64	59.03	82	30	23.0	29.0	3	6	5	11	15	32
Fort Webster*.........	40.26	55.86	65.86	46.46	52.11	72	24	19.9	28.1	29	56	8	14	9	15
Fort Conrad...........	42.23	56.23	72.13	55.22	56.45	85	32	28.5	24.5	10	24	23	59	9	12
Albuquerque	......	......	......	......	......	....	....	......	......	5	10	15	18	28	42
Fort Union............	37.00	51.35	60.51	42.80	47.91	71	25	23.1	22.9	2	3	1	1	6	13
Santa Fé	36.26	50.80	59.64	44.80	47.87	72	27	24.1	20.9	47	67	1	1	1	1
Fort Massachusetts.....	29.61	45.03	51.58	34.25	40.12	62	15	21.9	25.1	31	95	6	18	0	0
Fort Defiance..........	30.80	46.96	61.90	42.87	45.63	75	23	29.4	22.6	8	30	7	13	0	0
Fort Yuma............	61.35	71.45	86.45	72.35	72.90	98	50	25.1	22.9	32	61	14	35	25	34
San Diego.............	57.03	69.25	74.64	59.61	65.13	92	45	26.9	20.1	1	2	16	19	24	26
Rancho de Jurupa	54.61	64.74	74.54	65.35	64.81	89	45	24.2	19.8	0	0	2	7	1	2
San Francisco	50.90	57.16	60.06	53.70	55.46	69	46	13.5	9.5	4	10	1	3	1	1
Benicia	52.96	61.48	69.93	57.96	60.58	81	48	20.4	12.6	0	0	0	0	1	1
Fort Miller.............	51.35	68.74	83.36	61.87	66.33	96	41	29.7	25.3	0	0	4	10	20	53
Fort Reading	45.80	59.74	75.00	58.51	59.76	84	35	24.2	24.8	23	61	1	3	1	1
Fort Orford	49.13	57.63	61.08	50.95	54.70	72	41	17.3	13.7	0	0	3	5	0	0
Columbia Barracks	46.64	55.03	62.93	51.38	52.90	70	38	16.1	15.9	2	4	40	96	30	77
Dalles of the Columbia.	40.51	53.61	67.77	52.41	53.57	81	30	27.4	23.6	0	0	0	0	16	21
Fort Steilacoom........	45.32	52.48	58.58	50.38	51.69	68	35	16.3	16.7	0	0	1	2	12	17

*Post removed from *Old Copper Mines*, 8 miles E.N.E. to a point on the *Rio de los Mimbres*, on the 19th of this month.

MONTH OF OCTOBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	19	43	72	6	9	34	36	3	6	6.51	6.90	6.90	7.58	6.97	26	5	5	0	4.81	
10	17	40	62	12	24	2	2	24	38	5.65	5.35	5.19	7.29	5.87	19	12	7	0	3.64	
51	118	3	6	6	8	1	2	36	73	2.50	4.90	5.90	7.30	5.15	15	16	3	0	5.40	
37	70	30	78	10	16	12	24	4	10	5.58	5.19	5.00	6.74	5.63	19	12	6	0	3.69	
47	153	6	19	2	5	19	47	13	29	4.83	5.32	4.74	6.00	5.22	20	11	7	0	3.35	
5	10	25	65	49	119	17	28	10	22	1.70	6.00	6.54	7.83	5.52	24	7	6	0	2.70	
21	52	29	55	9	20	6	13	12	26	6.52	6.52	6.16	7.52	6.68	24	7	6	0	2.54	
48	82	35	45	8	8	0	0	4	4	7.00	7.19	8.00	7.93	7.53	23	8	8	0	5.26	
89	151	0	0	5	8	7	14	11	19	4.51	6.06	6.54	4.32	5.36	22	9	6	0	3.92	
37	111	15	39	0	0	1	2	5	12	5.06	6.87	7.70	8.67	7.07	27	4	4	0	1.41	
21	51	9	25	2	6	3	7	8	18	7.22	6.77	6.58	7.77	7.08	26	5	4	0	4.95	
32	115	21	61	0	0	1	1	5	20	5.87	6.45	5.77	7.19	6.32	22	9	5	0	4.78	
69	128	4	4	1	1	1	1	17	28	5.58	5.58	6.07	7.29	6.13	22	9	4	0	1.13	
52	158	1	1	1	3	3	3	8	29	6.41	8.00	8.80	8.83	8.01	27	4	6	0	1.22	
31	90	0	0	1	5	2	9	13	27	5.61	6.64	7.38	7.96	6.90	25	6	5	0	3.19	
20	42	35	83	3	4	10	19	6	14	4.09	4.83	5.41	6.54	5.22	20	11	4	0	2.09	
8	15	8	15	4	11	23	71	2	5	7.32	7.74	7.16	6.58	7.20	26	5	4	0	0.77	
4	8	15	32	7	17	36	63	7	16	8.93	9.33	9.20	9.33	9.20	28	3	4	0	1.19	
4	6	15	52	19	55	18	33	7	10	8.01	8.06	7.25	7.22	7.64	26	5	5	0	1.63	
35	56	7	10	1	3	30	57	2	3	7.16	7.07	6.42	6.97	6.90	29	2	5	0	0.35	
19	62	11	33	3	12	9	20	44	109	4.93	6.61	6.83	6.61	6.25	22	9	6	2	3.44	
1	2	12	29	10	23	8	9	5	6	7.80	8.09	8.03	8.13	8.01	27	4	4	2	2.55	
8	24	24	72	31	93	3	9	16	48	6.87	6.93	7.16	7.29	7.06	23	8	4	2	1.84	
2	3	0	0	8	23	57	76	38	85	8.09	7.77	7.48	6.12	7.37	26	5	4	0	1.60	
1	3	9	30	3	10	20	52	11	31	8.45	8.77	8.45	7.00	8.17	26	5	0	0	0.00	
9	12	16	22	35	69	22	39	4	6	4.54	6.12	7.54	6.77	6.24	21	10	1	0	0.06	
1	2	0	0	96	187	19	29	2	8	5.41	6.09	7.41	7.54	6.61	24	7	0	0	0.00	
0	0	3	7	17	35	43	139	57	190	3.16	4.61	4.96	4.29	4.26	14	17	2	0	0.69	
1	2	3	3	5	16	110	325	0	0	4.29	6.35	6.29	7.03	6.00	23	8	2	0	1.05	
36	58	2	4	3	6	8	19	3	7	8.80	8.64	9.09	9.22	8.94	27	4	2	0	0.07	
0	0	6	12	1	1	2	3	2	2	7.74	7.74	6.87	7.83	7.54	27	4	2	0	0.48	
42	139	1	4	25	72	0	0	37	97	4.45	4.32	4.13	5.19	4.52	14	17	10	0	....	
9	22	8	17	3	8	6	15	18	38	3.90	4.10	5.19	5.19	4.59	19	12	17	0	1.55	
1	1	0	0	9	13	82	106	13	36	6.32	6.74	6.67	7.83	6.89	23	8	3	0	0.25	
41	90	12	32	29	80	7	13	18	38	0.64	1.22	2.32	3.64	1.96	4	27	20	0	3.72	

MONTH OF NOVEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	34.66	39.36	41.40	37.70	38.28	53	31	14.7	9.3	0	0	9	33	2	6
Fort Preble	32.66	37.66	40.93	35.26	36.38	52	19	15.6	17.4	29	83	19	60	1	5
Fort Constitution	31.20	36.20	42.00	33.63	35.76	52	18	16.2	17.8	28	59	9	18	14	45
Fort Independence	36.40	39.43	44.77	38.40	39.75	56	22	16.3	17.7	2	7	34	121	0	0
Fort Adams	39.53	42.00	45.93	43.43	42.72	58	24	15.3	18.7	28	158	15	51	12	49
Fort Trumbull	37.70	41.20	44.80	41.10	41.20	58	25	16.8	16.2	0	0	41	103	0	0
Fort Hamilton	39.80	44.46	51.03	44.36	44.91	64	27	19.1	18.9	46	73	7	16	5	14
Fort Columbus	38.76	41.20	44.56	42.13	41.64	60	24	18.4	17.6	13	18	31	43	1	1
West Point	36.83	39.90	43.53	39.66	39.98	56	22	16.0	18.0	37	84	3	5	3	6
Watervliet Arsenal	35.73	39.50	45.13	38.63	39.75	60	18	20.3	21.7	1	3	0	0	0	0
Fort Ontario	32.26	35.90	38.06	34.56	35.20	51	8	15.8	27.2	0	0	22	42	0	0
Fort Niagara	34.83	37.27	39.53	36.53	37.04	52	26	15.0	11.0	4	25	16	54	15	32
Alleghany Arsenal	36.93	40.40	43.30	38.36	39.65	65	24	25.3	15.7	3	3	27	39	6	7
Carlisle Barracks	35.67	39.83	42.23	36.47	38.55	54	26	15.4	12.6	14	26	2	7	35	85
Fort Mifflin	38.20	43.30	47.60	40.60	42.40	62	28	19.6	14.4	6	11	40	151	15	35
Fort McHenry	37.80	42.46	48.56	43.06	42.97	62	28	19.0	15.0	24	52	28	68	6	16
Fort Washington	38.43	45.30	50.23	41.06	43.76	66	26	22.2	17.8	15	41	11	30	4	12
Fort Monroe	46.26	49.17	54.20	50.12	49.94	70	31	20.1	18.9	9	18	16	31	1	2
Fort Moultrie	52.70	58.10	64.86	58.26	58.48	81	37	22.5	21.5	20	34	21	45	6	9
Fort Pierce	64.86	72.00	76.80	69.46	70.78	85	50	14.2	20.8	9	26	26	88	7	25
Key West Barracks	73.83	76.40	78.36	76.16	76.19	83	63	6.8	13.2	29	116	26	79	24	76
Fort Myers	67.96	74.06	81.53	72.73	74.07	88	52	13.9	21.1	13	35	10	20	5	9
Fort Brooke	60.80	66.26	75.56	68.66	67.82	86	48	18.2	19.8	3	6	48	76	9	15
Fort Meade	59.73	69.43	76.57	66.90	68.16	86	44	17.8	24.2	37	52	12	24	17	19
Barrancas Barracks	53.96	60.46	67.63	57.93	60.00	80	36	20.0	24.0	42	119	11	40	1	3
Mount Vernon Arsenal	51.06	55.63	64.93	55.86	56.87	81	35	24.1	29.1	29	78	15	30	8	19
New Orleans Barracks	55.81	62.10	68.16	59.40	61.37	84	39	22.6	22.4	17	39	21	52	45	101
Baton Rouge Barracks	48.70	56.60	65.60	53.10	56.00	84	28	28.0	28.0	29	46	20	38	36	69
Fort Towson	41.40	46.30	59.10	48.40	48.80	79	23	30.2	25.8	26	62	19	36	38	102
Fort Washita	40.96	45.03	57.06	47.66	47.68	79	25	31.3	22.7	32	77	6	16	8	17
Fort Smith	41.30	43.66	53.73	47.43	46.53	75	24	28.5	22.5	13	21	14	26	23	35
Fort Gibson	39.70	43.60	52.73	43.76	44.95	78	24	33.1	20.9	17	22	4	4	4	4
Fort Scott	33.40	37.70	44.70	37.90	38.40	71	19	32.6	19.4	14	17	28	39	19	40
Jefferson Barracks	36.03	38.80	43.60	39.20	39.41	64	20	24.6	19.4	20	53	10	18	2	8
St. Louis Arsenal	35.00	38.03	43.56	37.33	38.48	60	19	21.5	19.5	15	22	8	15	28	58
Newport Barracks	39.30	41.20	44.90	42.30	41.92	68	28	26.1	13.9	13	26	18	30	5	7
Fort Mackinac	30.43	33.46	34.63	30.96	32.37	46	20	13.6	12.4	9	16	5	18	32	121
Fort Brady	29.40	36.20	40.60	36.40	35.65	46	20	......	......	33	86	3	11	22	77
Fort Ripley	17.53	22.60	29.26	20.83	22.56	45	— 8	22.4	30.6	28	46	19	35	15	21
Fort Snelling	19.83	25.56	31.26	26.26	25.73	45	0	19.3	25.7	17	29	32	50	4	9
Fort Dodge	23.80	32.06	35.36	27.20	29.60	59	3	29.4	26.6	5	7	26	44	17	74
Fort Leavenworth	30.25	32.25	37.86	34.66	33.51	58	16	24.5	17.5	1	2	40	79	0	0
Fort Kearney	23.30	26.50	30.33	24.53	26.17	54	10	27.8	16.2	16	53	25	57	3	9
Fort Laramie	22.50	24.13	29.43	24.87	25.23	45	5	19.8	20.2	22	61	57	134	18	76
Fort Atkinson	30.46	34.06	38.66	34.86	34.51	56	16	21.5	18.5	36	111	12	24	7	11
Fort Arbuckle	37.96	43.76	55.76	42.93	45.10	78	20	32.9	25.1	12	17	12	13	15	16
Fort Belknap	40.31	51.31	58.36	48.21	49.55	78	26	28.4	23.6	30	41	0	0	5	6

MONTH OF NOVEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
4	5	5	22	5	14	27	86	61	215	3.60	3.13	3.06	3.10	3.22	9	21	5	5	4.20	
7	28	2	6	7	19	22	63	24	69	5.60	5.33	5.43	5.46	5.45	17	13	7	4	6.38	
1	7	1	4	5	10	21	54	35	78	3.63	3.96	4.36	5.36	4.33	16	14	6	2	4.35	
2	3	2	8	13	43	5	15	29	99	2.10	3.90	3.80	4.66	3.61	12	18	6	1	2.94	
3	13	7	28	4	11	27	102	17	78	4.20	3.40	3.20	5.07	3.97	11	19	10	0	6.62	
5	21	0	0	22	39	3	7	46	116	3.00	2.80	3.90	4.20	3.48	10	20	10	0	7.82	
5	18	1	3	4	7	15	48	40	110	4.26	5.16	5.16	5.73	5.08	17	13	10	0	4.14	
3	6	4	10	5	10	27	59	35	81	4.20	5.03	3.63	4.50	4.34	14	16	11	1	6.07	
4	8	16	29	7	14	8	20	35	101	3.10	3.10	3.73	4.17	3.52	10	20	12	4	4.47	
9	28	35	107	7	19	50	185	11	38	4.53	5.66	5.46	8.03	5.92	15	15	9	4	4.70	
37	43	0	0	37	83	0	0	20	90	4.73	5.53	5.80	4.16	5.06	14	16 ?	9	7	4.47	
13	27	0	0	17	49	29	130	15	75	0.90	1.07	2.08	1.70	1.92	8	22	6	4	2.62	Therm. protected.
3	3	3	4	17	43	42	117	4	8	1.60	1.60	1.76	1.80	1.69	7	23	14	6	2.67	
2	7	0	0	0	0	28	93	33	120	5.97	6.20	6.10	5.33	....	13	17	12	2	6.27	
17	60	0	0	1	2	0	0	9	20	4.20	4.40	4.10	3.50	4.05	15	15	10	2	3.80	
6	18	2	3	5	12	28	79	14	41	4.13	4.16	4.43	4.40	4.28	14	16	13	0	7.90	
16	40	1	2	17	45	6	20	44	158	4.00	3.56	4.46	4.80	4.21	15	15	13	0	6.90	
15	30	4	10	28	68	5	15	30	72	4.26	4.24	4.11	6.15	4.69	17	13	8	0	2.06	
7	10	6	14	17	41	11	17	31	64	5.83	6.03	6.43	7.33	6.40	21	9	5	0	2.12	
6	7	6	7	13	34	8	9	19	42	4.60	4.40	4.86	5.53	4.85	17	13	5	0	1.82	
17	55	11	32	6	22	0	0	2	3	3.93	5.13	4.73	5.26	4.76	14	16	8	0	3.00	
3	12	6	14	8	28	34	61	8	21	5.27	6.33	6.20	5.20	5.75	20	10	5	0	0.98	
9	20	3	6	11	32	12	22	21	39	6.30	6.06	4.30	7.96	6.16	21	9	3	0	3.20	
7	7	13	15	7	7	11	12	10	14	3.00	5.23	6.50	7.13	5.47	21	9	1	0	0.15	
16	68	8	42	10	54	0	0	26	77	4.36	5.83	6.50	6.93	5.91	21	9	9	0	7.80	
13	30	13	40	7	14	13	32	16	37	5.50	5.90	6.68	6.50	6.14	19	11	6	0	9.74	
6	15	7	24	6	21	11	24	6	14	4.33	4.20	4.33	5.73	4.65	14	16	5	0	7.00	
7	19	9	20	3	7	5	7	6	8	5.13	5.10	5.30	6.40	5.48	17	13	7	0	9.32	
15	37	3	9	3	6	10	22	4	13	4.20	4.20	5.20	5.70	4.82	16	14	8	0	4.84	
16	57	26	76	7	22	7	15	15	45	3.86	3.46	4.80	5.50	4.41	14	16	9	0	3.77	
4	6	3	7	3	4	24	41	8	11	3.00	3.86	4.40	5.33	4.15	16	14	9	1	4.05	
25	67	17	22	6	8	3	3	11	20	3.46	3.56	3.66	4.63	3.83	12	18	10	0	4.91	
9	14	6	14	10	22	18	39	7	17	3.30	2.60	2.60	3.40	2.98	10	20	7	2	5.98	
3	6	4	7	7	10	40	109	32	69	3.84	3.24	4.30	4.87	3.99	13	17	9	2	3.80	
9	18	9	13	2	4	31	77	12	32	7.10	6.47	7.10	2.63	5.82	16	14	7	1	2.75	
7	12	20	26	12	29	3	5	34	73	2.15	2.30	1.83	3.90	2.55	11	19	12	2	4.32	Therm. protected.
16	57	3	8	5	14	16	37	31	114	2.76	3.36	3.50	2.76	3.10	8	22	1	8	0.63	" "
4	14	16	32	13	27	8	26	1	2	2.50	3.40	3.60	2.50	3.00	8	22	1	10	1.42 ?	" "
10	17	7	9	8	14	8	12	18	31	3.20	2.66	3.06	3.26	3.05	9	21	1	13	3.10	
10	23	4	8	15	36	4	7	25	43	6.80	7.43	7.66	6.96	7.21	21	9	2	9	0.22	
6	23	4	4	7	19	6	21	40	78	1.33	1.35	0.96	2.46	1.53	7	23	5	13	1.92	
17	34	3	6	8	29	3	5	34	88	2.26	2.60	2.20	1.80	2.22	8	22	8	6	3.53	
32	90	8	19	0	0	4	5	15	42	1.26	1.36	2.03	1.50	1.54	6	24	1	11	2.24	
0	0	0	0	0	0	0	0	9	35	2.07	2.00	2.53	2.27	2.22	6	24	0	15	6.42 ?	
26	84	11	42	1	2	15	51	11	35	4.26	3.50	3.60	3.66	3.50	12	18	2	2	1.39	
18	32	12	26	8	10	13	16	22	27	5.86	6.16	7.76	7.06	6.71	21	9	5	0	2.50	
11	17	18	27	10	15	18	29	1	2	5.93	6.83	7.26	7.90	6.98	21	9	4	0	3.15	

MONTH OF NOVEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Phantom Hill	39.90	51.36	63.63	46.23	50.28	78	26	27.7	24.3	35	51	2	2	13	23
Fort Chadbourne	37.17	53.10	66.90	43.96	50.29	81	20	30.7	30.3	47	66	4	5	3	6
Fort Worth	43.60	49.30	61.50	51.70	51.52	81	27	29.5	24.5	28	57	20	40	3	5
Fort Graham	46.43	57.20	67.23	55.76	56.65	87	30	30.3	26.7	16	39	7	16	3	8
Fort Croghan	49.80	55.40	67.70	55.03	56.98	87	32	30.0	25.0	15	51	26	73	6	23
Fort Mason	46.83	53.13	64.43	52.90	54.32	78	28	23.7	26.3	9	20	1	2	5	8
Fort McKavett	43.76	55.06	64.90	48.66	53.09	79	26	25.9	27.1	8	22	4	4	7	16
Fort Terrett	44.00	57.80	66.06	47.76	53.90	79	27	25.1	26.9	4	9	7	9	10	13
Fort Ewell	54.60	64.20	79.10	62.63	65.13	96	29	30.9	36.1	19	33	16	38	21	36
Fort Brown	64.47	74.93	73.27	66.07	69.68	84	46	14.3	23.7	4	8	26	57	29	64
Ringgold Barracks	62.23	67.33	77.93	68.40	68.97	92	30	23.0	39.0	27	74	12	32	14	35
Fort McIntosh	56.27	66.23	78.47	65.50	66.62	95	30	28.4	36.6	8	17	23	40	5	6
Fort Duncan	47.00	60.96	73.03	54.20	58.80	90	27	31.2	31.8	17	56	14	27	39	112
Fort Inge	46.23	59.83	71.00	53.23	57.57	86	23	28.4	34.6	13	17	29	53	24	56
Fort Clarke	50.73	59.50	68.56	54.60	58.35	82	26	23.7	32.3	43	103	2	3	2	4
Fort Fillmore	36.10	46.77	58.57	42.56	46.00	75	21	29.0	25.0	19	49	10	21	13	30
Fort Webster	27.03	40.41	52.34	32.65	38.11	70	16	31.9	22.1	47	81	8	14	2	4
Fort Conrad	31.23	42.93	56.50	40.83	42.87	74	18	31.1	24.9	9	24	12	26	9	14
Albuquerque	35.60	41.23	53.57	41.33	42.93	68	25	25.1	17.9	3	7	6	9	15	27
Fort Union	26.26	36.86	43.23	30.73	34.27	64	9	29.7	25.3	7	17	4	8	1	1
Santa Fé	27.27	36.93	42.73	30.63	34.39	56	14	21.6	20.4	47	84	0	0	1	4
Fort Massachusetts	17.50	27.16	31.56	21.33	24.39	49	— 9	24.6	33.4	22	68	3	10	4	12
Fort Defiance	23.86	33.43	43.33	29.16	32.45	60	1	27.5	31.5	3	4	1	1	2	3
Fort Yuma	49.53	61.06	73.13	62.10	61.46	88	38	26.5	23.5	35	76	5	10	6	9
San Diego	48.63	63.09	64.83	52.30	57.19	83	38	25.8	19.2	3	3	15	16	29	43
Rancho de Jurupa	48.16	58.13	64.16	53.66	56.03	85	39	29.0	17.0	0	0	1	1	0	0
San Francisco	51.36	55.06	58.86	53.20	54.62	70	41	15.4	13.6	16	67	3	12	2	5
Benicia	50.40	55.63	62.06	55.36	55.86	78	36	22.1	19.9	1	3	1	3	5	15
Fort Miller	43.96	51.13	64.33	50.63	52.51	84	34	31.5	18.5	0	0	3	9	22	43
Fort Reading	45.86	50.83	59.76	50.76	51.80	87	31	35.2	20.8	16	40	1	1	1	1
Fort Orford	47.31	52.43	54.91	47.71	50.59	67	38	16.4	12.6	33	64	13	17	3	6
Columbia Barracks	41.10	46.00	49.06	44.16	45.08	67	30	21.9	15.1	0	0	3	4	5	12
Dalles of the Columbia	35.53	40.30	48.86	40.30	41.25	70	21	28.7	20.3	5	9	1	1	20	35
Fort Steilacoom	39.36	45.70	48.56	41.36	43.75	59	28	15.3	15.7	5	12	6	15	9	15

MONTH OF NOVEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	28	30	55	1	5	22	31	4	6	4.36	5.83	5.93	6.86	5.74	20	10	5	1	2.45	
8	11	19	28	5	11	2	3	13	22	6.53	6.73	7.80	7.73	7.20	22	8	4	1	0.80	
34	105	18	62	0	0	0	0	20	49	2.67	3.50	4.33	6.15	4.16	13	17	7	0	2.60	
21	51	37	99	21	50	10	22	5	15	5.00	4.63	3.66	5.93	4.80	15	15	7	0	5.70	
21	97	11	26	14	45	10	47	9	36	3.53	4.53	6.53	7.10	5.42	16	14	8	0	3.33	
5	11	22	44	11	29	8	13	22	61	6.17	6.03	7.77	8.27	7.06	23	7	5	0	1.50	
10	22	78	130	6	13	10	16	3	16	6.26	6.66	7.80	8.06	7.20	22	8	4	0	1.59	
31	66	0	0	3	5	44	80	20	44	4.73	6.83	7.36	5.20	6.03	24	6	3	0	1.23	
18	38	15	39	9	19	9	22	2	5	4.90	6.13	7.26	7.80	6.52	23	7	2	0	0.15	
13	24	17	47	11	23	5	10	10	23	7.20	7.20	6.90	6.87	7.04	24	6	2	0	0.90	
22	56	26	57	1	2	3	3	7	21	4.03	4.63	5.20	6.46	5.08	17	13	1	0	0.01	
50	80	8	10	1	1	1	1	21	44	3.83	4.73	6.73	7.13	5.60	17	13	2	0	0.24	
31	96	1	2	6	17	2	3	10	31	6.73	6.86	8.66	8.96	7.80	25	5	3	0	0.24	
21	56	1	1	2	10	7	23	17	37	5.86	6.50	7.33	7.86	6.89	23	7	4	0	1.52	
37	90	26	58	4	5	2	3	0	0	5.70	4.93	6.26	6.90	5.95	16	14	2	0	1.91	
2	4	1	1	5	13	14	42	9	25	8.00	7.53	7.13	6.86	7.38	23	7	5	1	2.66	
3	5	9	26	8	27	11	32	24	61	9.48	8.96	8.75	9.24	9.11	28	2	3	5	3.48	First 29 days.
6	7	12	41	18	53	35	87	5	9	7.50	7.40	6.90	7.83	7.54	25	5	4	3	1.34	
25	50	28	42	0	0	37	50	0	0	6.00	6.23	6.27	6.50	6.25	24	6	4	2	0.16	
10	25	3	9	3	6	12	29	45	144	6.03	5.63	5.96	6.36	6.00	21	9	0	6	2.83*	* “Inches of snow.”
0	0	12	29	1	2	22	27	3	4	6.33	6.46	6.43	7.30	6.63	20	10	2	5	1.65	
13	37	34	90	24	72	7	21	10	30	4.26	5.10	5.10	5.53	5.00	17	13	0	9	6.34	
2	3	13	22	46	85	23	32	29	78	5.73	6.40	5.60	5.06	5.70	20	10	0	9	1.22	
1	1	12	30	7	19	22	48	16	51	7.70	7.33	6.70	8.45	7.55	25	5	5	0	0.35	
7	8	25	37	25	52	12	22	1	1	4.80	5.76	6.76	5.76	5.77	19	11	6	0	1.45	
8	16	0	0	86	177	9	16	11	41	6.10	6.30	6.53	7.23	6.54	24	6	5	0	2.89	
8	35	22	80	16	62	16	55	32	111	3.33	4.50	4.60	5.23	4.42	15	15	15	0	4.92	
2	7	18	50	15	47	55	182	1	5	3.80	4.76	4.03	4.40	4.25	15	15	10	0	2.28	
35	83	16	37	9	19	18	39	3	5	6.40	6.73	7.30	7.16	6.90	20	10	10	0	8.80	
1	3	37	113	1	2	3	3	2	3	4.56	4.86	4.73	4.20	4.59	17	13	13	0	8.48	
49	200	9	23	2	4	0	0	6	13	1.60	1.86	1.80	2.06	1.83	4	26	26	0	12.03	
69	134	1	2	2	3	3	6	34	50	0.90	1.80	1.96	1.66	1.58	6	24	14	0	7.37	
5	9	0	0	7	9	64	88	17	29	3.53	3.06	3.53	4.40	3.63	10	20	12	3	2.75	
47	118	5	13	25	101	5	7	13	32	0.96	1.66	2.13	2.70	1.86	4	26	20	0	6.17	

MONTH OF DECEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	27.64	33.83	38.03	31.90	32.85	54	5	21.2	27.8	1	1	12	46	16	31
Fort Preble	28.67	32.64	35.77	30.87	32.00	55	4	23.0	28.0	27	88	26	95	5	11
Fort Constitution	28.25	32.48	36.74	31.06	32.13	54	4	21.9	28.1	25	45	11	28	9	41
Fort Independence	33.58	35.87	41.58	35.30	36.58	55	10	18.4	26.6	15	55	20	91	5	23
Fort Adams	37.74	39.26	43.87	41.39	40.56	56	15	15.4	25.6	7	29	7	29	3	15
Fort Trumbull	36.50	39.30	43.10	38.90	39.45	53	16	13.5	23.5	0	0	46	118	0	0
Fort Hamilton	36.22	38.90	42.93	38.00	39.01	63	18	24.0	21.0	5	6	31	38	5	9
Fort Columbus	37.51	40.64	44.64	39.01	40.45	67	18	16.5	22.5	6	6	38	56	1	2
West Point	32.96	35.24	40.45	37.19	36.46	55	14	18.5	22.5	16	44	2	3	4	7
Watervliet Arsenal	33.29	38.51	42.83	35.86	37.62	64	0	26.4	37.6	12	42	0	0	0	0
Fort Ontario	30.03	32.54	34.58	31.12	32.07	58	10	25.9	22.1	0	0	20	29	0	0
Fort Niagara	32.27	34.16	36.91	34.84	34.54	59	19	24.5	15.5	6	15	10	25	9	23
Alleghany Arsenal	33.30	35.45	41.25	36.48	36.62	57	17	20.4	19.6	3	4	17	22	17	21
Carlisle Barracks	31.68	34.87	40.61	38.03	36.30	59	18	22.7	18.3	7	16	12	42	39	75
Fort Mifflin	35.00	39.60	44.70	39.70	39.75	59	24	19.3	15.7	14	59	30	88	10	30
Fort McHenry	35.03	40.25	46.19	40.45	40.48	56	25	15.5	15.5	14	26	16	36	11	17
Fort Washington	36.29	41.06	49.06	42.16	42.14	64	26	21.9	16.1	23	49	10	14	4	5
Fort Monroe	46.64	48.13	53.28	43.29	47.84	66	34	18.2	13.8	7	14	22	58	5	9
Fort Moultrie	52.29	56.35	61.48	54.96	56.27	72	37	15.7	19.3	31	45	16	41	0	0
Fort Pierce	66.06	71.35	74.80	68.74	70.24	82	48	11.8	21.2	23	40	17	59	3	8
Key West Barracks	72.22	75.19	77.68	74.64	74.93	83	61	8.1	13.9	18	85	26	99	40	141
Fort Myers	66.70	72.16	78.80	72.03	72.42	84	55	11.6	17.4	10	30	1	2	13	16
Fort Brooke	59.64	65.19	73.40	67.14	66.34	80	43	13.7	23.3	0	0	42	57	17	19
Fort Meade	59.67	69.80	75.35	69.54	68.59	83	44	14.4	24.6	26	32	7	10	34	44
Barrancas Barracks	57.51	60.74	67.19	61.13	61.64	74	37	12.4	24.6	28	98	20	72	3	6
Mount Vernon Arsenal	54.13	56.67	68.10	59.12	59.51	78	34	18.5	25.5	13	31	20	40	5	10
New Orleans Barracks	56.08	61.24	69.37	61.25	61.98	80	39	12.0	23.0	3	10	19	62	38	89
Baton Rouge Barracks	51.09	57.64	67.06	56.45	58.06	80	26	21.9	32.1	26	52	17	27	42	63
Fort Towson	38.30	42.30	52.30	41.80	43.68	77	17	23.3	26.7	34	77	13	31	26	59
Fort Washita	35.06	38.32	50.03	42.09	41.37	75	16	33.6	25.4	27	80	6	18	14	35
Fort Smith	35.12	36.83	46.51	39.93	39.60	73	19	33.4	20.6	15	25	20	33	16	23
Fort Gibson	33.48	36.19	43.70	36.19	37.39	68	14	20.6	23.4	37	58	8	29	1	1
Fort Scott	28.03	29.61	36.40	30.70	31.18	67	8	35.8	23.2	23	41	5	7	10	11
Jefferson Barracks	31.51	36.28	39.64	34.58	35.50	56	15	20.5	20.5	13	22	10	25	8	11
St. Louis Arsenal	28.84	33.00	40.16	32.29	33.57	60	15	26.2	18.8	22	56	4	16	10	15
Newport Barracks	37.45	38.48	43.74	40.93	40.15	56	26	15.9	14.1	3	5	25	52	3	5
Fort Mackinac	22.48	25.29	30.12	23.96	25.46	51	5	25.5	20.5	17	30	18	60	19	67
Fort Brady	21.14	25.18	28.70	25.21	25.06	46	— 3	20.9	28.1	10	25	13	37	53	124
Fort Ripley	5.87	7.83	14.12	9.64	9.37	36	—36	26.6	45.4	28	67	23	43	7	13
Fort Snelling	8.45	11.61	15.45	11.19	11.67	45	—24	23.3	35.7	16	23	36	64	8	16
Fort Dodge	12.39	20.00	22.96	15.58	17.73	46	—17	28.3	34.7	18	40	14	32	15	47
Fort Leavenworth	22.00	23.19	31.56	26.35	25.77	60	1	34.2	24.8	2	4	10	14	0	0
Fort Kearney	9.67	14.06	19.80	16.77	15.07	42	—19	26.9	34.1	27	57	16	42	2	2
Fort Laramie	16.36	18.52	25.58	19.23	19.92	45	—11	25.1	30.9	23	69	16	49	12	45
Fort Atkinson	23.04	26.04	35.72	30.83	28.91	59	2	30.1	26.9	13	66	22	52	5	13
Fort Arbuckle	31.09	37.22	50.12	36.87	38.82	74	10	35.2	28.8	29	40	14	17	11	11
Fort Belknap	35.33	45.56	53.41	42.16	44.11	75	19	30.9	25.1	27	39	2	2	1	1

MONTH OF DECEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	4	4	6	5	9	0	0	78	157	1.29	2.93	3.29	1.64	2.27	7	24	3	11	2.50	
8	23	4	10	6	22	8	23	41	114	5.16	5.90	5.70	4.36	5.28	12	19	6	10	6.10	
5	17	1	3	11	27	38	85	22	54	3.32	3.96	3.09	3.77	3.54	12	19	9	4	4.65	
0	0	0	0	27	76	14	44	5	24	2.55	4.00	3.64	3.87	3.51	11	20	7	7	3.00	
10	36	34	106	15	47	21	69	28	117	4.52	4.19	3.71	4.06	4.12	12	19	12	2	6.53	
2	4	0	0	19	44	10	14	38	83	4.00	3.20	2.70	3.50	3.35	10	21	13	3	10.58?	
8	16	5	8	27	48	12	23	30	72	3.83	3.70	3.83	3.93	3.82	10	21	12	2	3.80	
5	15	14	21	23	26	17	54	19	34	5.12	5.48	4.64	5.80	5.26	15	16	15	2	4.45	
8	16	23	40	12	21	8	24	46	127	2.70	3.19	2.90	3.22	3.00	10	20	13	6	5.31	
0	0	41	138	1	3	55	160	13	39	6.22	6.41	6.77	5.90	6.32	13	18	7	4	2.35	
53	85	0	0	32	85	0	0	18	44	4.63	4.64	5.32	4.03	4.66	15	16	9	7	4.09	
11	18	5	9	21	41	46	146	11	44	1.58	1.84	1.93	1.48	1.71	8	23	8	9	5.97	
12	20	10	27	23	74	16	56	2	4	2.70	3.58	2.16	2.74	2.55	8	23	15	4	5.01	
3	5	5	12	2	3	24	55	29	95	....	....	....	....	....	12	19	12	2	3.61	
22	84	8	25	10	32	1	1	26	98	4.30	4.50	4.00	4.50	4.33	13	18	13	1	5.45	
6	11	6	8	16	42	20	37	21	69	4.12	4.16	3.87	3.64	3.95	13	18	13	1	6.20	
14	28	12	29	28	62	7	20	23	46	2.96	3.03	2.80	3.74	3.13	10	21	14	1	4.64	
4	9	4	10	46	127	4	7	27	30	3.90	3.48	3.45	4.55	3.85	11	20	15	0	2.94	
10	12	10	17	28	49	10	13	14	26	3.35	2.93	3.67	5.74	3.92	9	22	8	0	4.60	
27	88	24	42	5	6	13	21	9	10	5.61	6.12	5.48	6.35	5.89	16	15	4	0	2.30	
3	6	9	22	8	21	5	10	7	26	4.48	5.03	5.74	6.93	5.55	20	11	6	0	3.41	
11	14	12	18	7	15	26	72	7	21	5.35	5.90	5.38	5.90	5.63	21	10	3	0	2.34	
21	24	5	11	7	15	14	17	14	29	4.74	5.09	3.61	6.74	5.04	17	14	4	0	3.00	
19	24	4	4	4	6	20	25	8	10	2.61	5.67	5.80	6.32	5.10	18	13	4	0	1.32	
13	56	18	79	10	34	6	15	15	53	2.87	4.16	4.45	6.35	4.46	16	15	10	0	3.51	
17	30	27	59	13	27	5	13	16	38	4.80	5.15	5.80	5.70	5.36	17	14	11	0	7.15?	
6	11	16	42	11	31	21	46	8	18	2.64	2.93	3.19	3.83	3.15	9	22	7	0	5.30	
4	6	25	49	2	3	1	3	4	7	4.32	4.51	4.71	4.74	4.57	12	19	13	0	3.95	
15	27	7	21	7	24	9	17	9	27	3.30	4.00	5.60	6.50	4.85	16	15	7	0	0.77	
11	37	30	103	9	28	19	57	7	21	3.51	3.64	4.96	5.77	4.47	13	18	4	0	0.29	
1	3	1	3	3	9	18	33	16	24	2.48	4.12	4.74	5.80	4.28	16	15	3	1	1.62	
17	33	18	31	8	8	0	0	5	5	3.67	3.29	3.48	5.61	4.01	12	19	5	2	0.74	
11	24	26	51	5	18	18	44	14	30	2.90	2.80	2.10	3.80	2.90	8	23	6	4	1.98	Morning temps. inaccurate.
4	11	7	21	9	29	31	80	41	123	3.83	5.19	4.06	4.64	4.43	15	16	5	3	3.97	
5	9	22	41	7	13	27	79	11	28	....	....	....	....	....	15	16	5	2	3.90	
7	12	29	43	28	51	2	4	25	58	2.64	2.67	3.06	4.16	3.13	11	20	12	2	8.53?	Therm. protected.
16	63	6	17	7	29	7	10	23	72	1.96	2.64	3.29	2.90	2.70	9	22	2	12	3.46	
2	4	17	35	6	20	9	34	3	13	2.12	2.24	2.80	2.80	2.49	9	22	2	15	2.99	
12	20	16	21	9	14	13	20	14	22	3.41	2.54	3.00	2.90	2.96	8	23	3	12	2.87	
11	23	1	2	17	29	11	18	23	30	7.77	7.25	7.54	8.25	7.70*	16	15	0	6	0.15	
8	34	3	3	7	17	6	26	44	113	1.74	1.77	2.61	3.06	2.29	8	23	2	11	2.27	
21	45	3	10	15	47	8	11	51	136	2.22	2.29	3.03	3.38	2.73	11	20	5	3	0.60	
21	62	14	36	9	14	6	8	28	105	3.22	3.35	4.58	5.61	4.19	14	17	1	6	0.73	
0	0	0	0	3	14	10	47	37	163	2.71	3.35	3.45	5.07	3.64	10	21	0	10	1.23	
25	82	9	52	9	19	5	10	23	84	4.96	5.29	5.19	6.45	5.47	18	13	1	2	1.60	
16	22	22	39	11	16	1	1	12	16	7.41	7.93	8.29	4.25	6.97	23	8	4	1	0.12	
3	5	23	37	11	14	17	22	2	6	7.70	7.45	7.96	9.03	8.04	25	6	1	0	0.05	

* The scale of notation of *clearness* is too high at this post throughout, and that employed at *Forts Dodge* and *Leavenworth* somewhat too low.

MONTH OF DECEMBER, 1852.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Phantom Hill	34.03	47.58	60.22	42.58	46.10	79	14	32.9	32.1	23	59	1	2	9	17
Fort Chadbourne	33.90	54.59	64.45	38.70	47.64	90	12	42.4	35.6	76	121	10	21	1	1
Fort Worth	37.40	45.80	56.30	45.70	46.30	78	18	31.7	28.3	33	68	10	25	3	5
Fort Graham	41.06	51.06	62.58	48.67	50.84	82	20	31.2	30.8	23	69	7	14	8	17
Fort Croghan	46.10	51.29	63.06	49.32	52.44	83	26	30.6	26.4	27	101	7	26	12	24
Fort Mason	41.29	48.16	61.71	46.32	49.37	80	20	30.6	29.4	7	16	7	9	7	13
Fort McKavett	39.25	47.38	58.45	46.19	47.82	81	17	33.2	30.8	36	62	0	0	4	4
Fort Terrett	36.80	52.29	62.83	42.45	48.59	80	19	31.4	29.6	0	0	10	17	24	30
Fort Ewell	48.25	57.54	72.00	57.07	58.71	94	32	35.3	26.7	23	36	23	57	27	38
Fort Brown	60.90	70.51	69.16	61.71	65.57	80	42	14.4	23.6	10	25	24	51	21	49
Ringgold Barracks	54.41	60.45	73.87	62.96	62.92	88	41	25.1	21.9	34	80	16	44	13	24
Fort McIntosh	49.68	59.81	71.81	57.03	59.58	85	34	25.4	25.6	14	26	30	53	3	6
Fort Duncan	41.06	54.93	70.06	51.74	54.45	85	28	30.5	26.5	25	89	18	41	16	41
Fort Inge	40.77	55.80	67.90	46.70	52.79	81	28	28.2	24.8	6	16	21	38	30	68
Fort Clarke	43.90	53.90	66.70	48.35	53.21	78	26	24.8	27.2	51	108	2	4	2	3
Fort Fillmore	37.54	42.48	54.93	41.51	44.11	67	15	22.9	29.1	12	26	6	25	2	4
Fort Webster	29.87	40.70	54.40	37.54	40.63	65	12	24.4	28.6	36	82	8	5	4	8
Fort Conrad	28.22	39.03	55.10	38.35	40.18	66	14	25.8	26.2	11	25	20	43	7	8
Albuquerque	30.00	38.23	45.26	40.23	38.43	65	21	26.6	17.4	3	4	7	11	33	67
Fort Union	27.29	35.97	44.16	32.77	35.05	55	11	20.0	24.0	19	32	4	8	0	0
Santa Fé	21.32	30.16	38.93	28.09	29.62	49	13	19.4	16.6	49	69	0	0	0	0
Fort Massachusetts	10.96	21.35	27.19	17.09	19.15	39	— 6	19.8	25.2	20	58	4	12	1	3
Fort Defiance	21.41	27.64	38.83	26.93	28.70	50	2	21.3	26.7	0	0	0	0	2	2
Fort Yuma	45.12	53.51	67.90	55.35	55.47	75	32	19.5	23.5	41	72	11	24	10	17
San Diego	44.93	54.96	58.32	48.64	51.71	64	34	12.3	17.7	8	9	13	16	23	26
Rancho de Jurupa	45.55	51.48	56.90	50.54	51.12	66	36	14.9	15.1	0	0	3	6	5	8
San Francisco	47.09	50.03	53.74	49.51	50.09	63	37	12.9	13.1	6	20	3	11	3	9
Benicia	46.22	48.16	53.67	48.12	49.04	64	32	14.9	17.1	0	0	0	0	19	53
Fort Miller	43.41	48.93	54.32	47.48	48.54	72	28	23.5	20.5	0	0	8	19	22	43
Fort Reading	40.19	42.58	47.93	43.00	43.42	60	31	16.6	12.4	9	11	0	0	1	1
Fort Orford	42.92	44.90	45.90	42.90	44.15	54	31	9.8	13.2	8	13	0	0	1	1
Columbia Barracks	30.00	34.84	36.42	31.55	33.20	52	7	18.8	26.2	0	0	5	5	53	116
Dalles of the Columbia	20.87	23.90	31.29	23.74	24.95	49	— 5	24.0	30.0	4	5	13	16	12	23
Fort Steilacoom	31.61	33.83	35.80	31.90	33.28	48	0	14.7	33.3	5	12	20	41	9	16

MONTH OF DECEMBER, 1852.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	35	57	173	0	0	25	60	3	8	5.61	5.80	6.35	7.22	6.24	23	8	0	0	0.00	
0	0	17	32	0	0	4	11	4	9	6.73	6.77	6.80	7.50	6.95	23	8	0	0	0.00	Mid-day temps. much
14	32	22	88	9	25	3	8	24	62	3.30	3.29	4.50	5.00	4.02	15	16	2	0	0.10	[in excess.
13	27	30	74	21	59	14	31	8	25	5.93	4.80	4.19	7.41	5.58	17	14	4	0	0.31	
18	68	17	18	12	44	8	24	19	65	3.16	4.67	5.16	6.29	4.82	16	15	6	0	0.57	
9	18	17	39	21	54	11	20	21	68	5.84	5.39	6.77	7.55	6.39	23	8	1	0	0.01	
16	37	49	98	12	18	1	5	6	11	7.06	7.16	7.48	7.80	7.37	24	7	1	0	0.01	
31	50	0	0	3	4	39	66	16	32	4.77	6.54	7.41	5.19	5.98	24	7	0	0	0.00	
5	7	11	26	14	27	4	6	4	6	4.19	5.06	6.64	6.67	5.64	18	13	6	0	0.45	
18	43	16	40	5	10	10	20	18	38	7.40	7.23	6.90	7.32	7.21	26	5	1*	0	0.00	*Very slight rain.
14	23	18	45	7	15	4	8	9	20	3.06	3.64	5.58	6.35	4.66	16	15	3	0	0.08	
38	66	6	9	5	6	2	2	25	45	3.07	3.77	5.87	6.48	4.80	13	18	4	0	0.06	
32	72	11	26	6	21	0	0	11	28	5.22	7.32	9.06	7.93	7.38	25	6	1*	0	0.00	*Quantity inapprecia-
11	27	0	0	0	0	1	4	28	68	4.64	5.25	6.93	7.67	6.12	22	9	0	0	0.00	[ble.
19	48	37	77	3	5	0	0	6	16	3.96	4.16	5.90	7.64	5.41	22	9	0	0	0.00	
5	17	8	28	17	62	10	41	15	45	7.96	8.06	7.09	8.26	7.84	28	3	0	0	0.00	
0	0	2	2	1	2	25	69	49	125	7.38	7.22	7.70	8.11	7.60	28	3	2	0	0.30	
4	9	21	63	17	52	25	53	15	29	7.40	7.10	6.52	7.61	7.16	25	6	1	0	0.08	
25	55	19	27	1	1	33	55	2	7	4.97	5.81	6.07	5.87	5.68	22	9	3	0	0.02	
7	12	3	6	7	17	4	9	64	242	6.29	6.42	6.26	6.97	6.48	21	10	2	3	0.02	
0	0	3	9	5	10	24	43	20	43	6.83	7.32	6.63	6.77	6.89	25	6	2	3	1.36	
14	42	48	147	15	45	13	42	6	18	5.06	5.00	5.00	6.80	5.46	19	12	0	7	1.45	
1	2	8	27	49	116	41	59	18	63	5.64	5.77	4.80	4.45	5.16	18	13	0	4	1.30	
2	7	12	39	4	13	20	42	19	60	5.65	5.61	6.16	7.88	6.32	22	9	1	0	0.04	
11	13	18	35	11	17	27	47	9	10	3.22	4.77	5.25	4.03	4.32	14	17	10	0	4.50	
9	16	1	2	93	207	6	7	6	15	4.74	5.09	5.77	5.70	5.32	20	11	13	0	7.50	
18	66	15	72	19	97	33	130	24	86	2.77	3.29	2.54	3.22	2.96	8	23	24	0	12.07	
5	15	18	63	22	81	49	162	0	0	2.51	2.70	2.12	2.77	2.53	8	23	21	0	9.03	
31	79	21	41	10	25	8	17	3	8	5.29	6.16	6.77	6.29	6.13	13	18	16	0	20.60?	
5	5	49	177	4	4	4	7	3	3	2.93	3.00	3.16	3.00	3.02	9	22	15	3	11.18	
57	195	7	27	9	15	0	0	31	54	1.10	0.71	1.16	1.80	1.20	3	28	25	2	16.91	
18	33	0	0	3	4	15	16	19	20	0.55	0.71	1.61	1.13	1.00	3	28	16	9	13.37	
2	5	0	0	3	4	71	108	18	34	2.06	2.12	2.70	4.48	2.84	7	24	8	20	8.01	
30	51	16	58	33	131	81	31	2	3	1.61	1.78	1.58	2.54	1.88	3	28	11	16	8.84	

Notes to Table of Position of Stations, Mean Temperatures Monthly, and Extremes of Temperature for 1852.

(*a*) *Fort Conrad.*—A position for this post is given, with greater accuracy than before, by Assistant Surgeon Langworthy in May, 1853, though the geography of this portion of the Rio Grande valley is not yet fully established.

(*b*) *Fort Massachusetts.*—Altitude of a survey camp "a short distance below" the post.

(*c*) *Jurupa.*—Estimated from the altitude of *San Bernardino* as given by Lieut. Williamson, which is near this post.

(*d*) *Monterey.*—From March of this year the position of the instruments was but 20 feet above the sea.

The post entered as *Fort Chadbourne* should have retained the name of *Camp Johnston* until September. *Fort Chadbourne* is in latitude 32°, longitude 100° 20′, but with the same altitude and climate.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Sullivan........	44.54	66.58	30	22.16	26.93	30.38	40.25	49.51	54.00	61.08	60.76	57.72
Fort Preble..........	43.39	70.13	50	18.43	23.04	29.41	39.10	51.96	63.71	68.33	64.70	59.11
Fort Constitution	43.04	70.42	40	19.76	25.02	31.21	39.00	53.95	64.20	67.37	63.95	58.90
Fort Independence...	42.21	71.00	50	23.19	28.50	32.98	41.26	56.51	65.22	72.09	66.75	62.91
Fort Adams.........	41.30	71.19	40	26.49	30.03	35.26	42.15	55.15	65.72	72.33	69.35	63.76
Fort Trumbull.......	41.21	72.06	23	25.85	30.53	35.90	43.12	57.63	66.88	72.34	69.15	63.37
Fort Hamilton.......	40.37	74.02	25	25.42	30.48	40.20	46.20	58.32	68.70	74.02	71.02	67.60
Fort Columbus.......	40.42	74.01	23	24.33	30.74	36.72	43.73	60.30	69.70	76.61	73.27	63.77
West Point.........	41.23	74.00	167	21.57	28.69	33.36	42.49	58.40	68.30	72.90	67.75	61.78
Watervliet Arsenal..	42.43	73.43	50	16.67	25.77	32.63	44.42	60.69	68.68	75.44	71.54	70.40
Plattsburg Barracks..	44.41	73.25	186	13.90	21.05	27.22	38.66	......	......	......	......	......
Madison Barracks....	43.57	76.15	262	14.93	23.03	28.79	39.05	......	......	......	......	......
Fort Ontario........	43.20	76.40	250	19.07	24.98	30.67	37.49	53.26	62.46	69.60	67.59	59.26
Fort Niagara........	43.18	79.08	250	21.68	26.97	30.57	38.53	53.18	63.10	69.37	69.17	60.73
Alleghany Arsenal...	40.32	80.12	704	23.62	31.37	40.20	44.46	59.82	66.23	73.71	69.38	62.08
Carlisle Barracks....	40.12	77.14	......	23.00	30.19	37.09	44.25	61.73	68.31	74.16	68.62	61.31
Fort Mifflin.........	30.53	75.13	20	33.16	35.01	40.77	44.00	63.34	69.64	79.97	72.27	67.58
Fort McHenry.......	39.17	76.35	36	28.01	35.86	42.95	47.95	63.18	70.12	74.85	76.00	65.86
Fort Washington....	38.43	77.06	60	29.31	37.09	45.31	50.14	67.30	73.22	78.63	72.43	67.38
Fort Monroe.........	37.00	76.18	8	35.19	42.62	48.87	53.44	65.85	72.74	76.23	74.12	70.20
Fort Moultrie........	32.45	79.51	25	43.16	52.96	60.20	62.87	73.80	76.61	81.40	79.79	75.76
Fort Marion.........	29.48	81.35	25	49.26	60.31	......	......	......	......	......	......	......
Fort Pierce..........	27.30	80.20	30	54.91	64.97	69.82	71.23	78.68	80.06	80.02	81.96	79.94
Key West Barracks..	24.32	81.48	10	61.20	70.02	74.37	76.06	80.28	82.81	83.42	83.86	82.07
Fort Myers..........	26.38	82.00	50	58.16	68.01	73.55	74.28	81.95	82.41	83.50	82.93	82.89
Fort Brooke.........	28.00	82.28	20	52.70	62.56	70.26	70.96	77.66	79.43	79.61	80.08	79.04
Fort Meade.........	28.01	82.00	80	52.10	63.54	69.32	70.38	77.96	78.88	79.62	80.54	78.80
Fort Barrancas......	30.18	87.27	20	44.16	57.15	......	......	......	......	81.48	80.28	77.85
Mt. Vernon Arsenal..	31.12	88.20	200	42.15	59.55	64.17	64.42	76.43	79.60	82.29	82.14	79.01
East Pascagoula.....	30.23	88.28	10	......	......	......	......	78.11	80.84	83.98	83.25	80.89
New Orleans Bar'ks..	29.57	90.00	10	46.59	62.10	66.96	67.27	......	......	......	......	......
Baton Rouge Bar'ks..	30.26	91.18	41	42.78	59.81	65.87	64.53	74.42	77.74	79.69	79.17	75.11
Fort Towson........	34.00	95.33	300?	......	......	......	......	......	......	......	......	68.17
Fort Washita........	34.14	96.38	645	37.71	49.41	55.20	58.05	69.50	73.51	78.62	78.17	69.77
Fort Smith..........	35.23	94.29	460	......	......	......	58.92	67.91	72.74	73.07	76.51	69.06
Fort Gibson.........	34.47	95.10	842	34.82	47.03	54.00	58.80	70.13	74.31	81.60	76.97	69.36
Fort Scott...........	37.45	94.35	1000?	28.45	39.11	47.82	53.28	67.62	71.46	76.03	75.07	67.17
Jefferson Barracks...	38.28	90.15	472	28.20	38.33	48.25	53.31	67.27	71.76	77.60	73.60	67.81
St. Louis Arsenal.....	38.40	90.05	450	27.84	35.28	46.79	52.00	65.93	72.40	78.12	73.55	67.40
Newport Barracks....	39.05	84.22	500	27.26	37.95	46.62	51.01	64.37	68.97	76.74	72.20	65.79
Fort Gratiot.........	42.55	82.23	598	21.90	26.17	31.01	36.61	50.89	......	......	......	......
Fort Mackinac.......	45.51	84.33	728	15.80	20.14	24.17	35.73	......	......	64.47	65.65	55.13
Fort Brady..........	46.30	84.43	600	11.69	14.13	18.03	34.52	48.91	......	......	......	......
Fort Howard........	44.30	88.05	620	15.64	21.79	27.40	36.94	54.84	......	......	......	......
Fort Ripley.........	46.19	94.19	1130	10.08	17.53	21.21	36.55	55.96	63.05	68.00	66.58	53.43
Fort Snelling........	44.53	93.10	820	12.82	23.14	26.80	43.07	58.48	70.06	73.68	71.57	54.20
Fort Dodge.........	42.28	94.03	944	18.82	28.85	30.35	41.84	61.80	72.20	76.24	74.64	65.70
Fort Leavenworth....	39.21	94.44	896	24.42	34.82	43.89	50.26	64.68	69.96	74.79	73.42	63.42

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1852.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
47.59	38.28	32.85	40.05	58.61	47.86	27.31	43.46	85	— 8	41.5	51.5	Maine.
48.16	36.38	32.00	40.16	65.58	47.88	24.49	44.53	92	—13	47.5	57.5	Maine.
48.23	35.76	32.13	41.42	65.14	47.63	25.64	44.96	96	—10	51.0	55.0	New Hampshire.
51.81	39.75	36.58	43.58	68.02	51.49	29.42	48.13	96	0	47.9	48.1	Boston harbor, Mass.
54.62	42.72	40.56	44.19	69.13	53.70	32.36	49.84	85	2	35.2	47.8	Rhode Island.
54.63	41.20	39.45	45.55	69.45	53.07	31.94	50.00	87	0	37.0	50.0	Connecticut.
58.72	44.91	39.01	48.24	71.24	57.08	31.64	52.05	98	— 1	45.9	53.1	New York harbor.
55.61	41.64	40.45	46.92	73.19	53.67	31.84	51.40	93	— 2	41.6	53.4	New York harbor.
53.56	39.98	36.46	44.75	69.65	51.77	28.91	48.77	92	— 4	43.2	52.8	New York.
56.60	39.75	37.62	45.91	71.89	55.58	26.69	50.02	99	—14	49.0	64.0	New York.
......	......	......	......	......	......	......	......	....	—16	....	....	New York.
......	......	......	......	......	......	......	......	....	—12	....	....	New York.
50.24	35.20	32.07	40.47	66.55	48.23	25.37	45.15	96	— 4	50.8	49.2	Oswego, New York.
51.91	37.04	34.54	40.76	67.21	49.89	27.73	46.39	93	— 5	46.6	51.4	New York.
57.22	39.65	36.62	48.16	69.77	52.98	30.54	50.36	95	—14	44.6	64.4	Pittsburg, Pennsylvania.
55.63	38.55	36.30	47.69	70.36	51.83	29.83	49.93	98	—12	48.1	61.9	Carlisle, Pennsylvania.
58.80	42.40	39.75	49.37	73.96	56.26	35.97	53.89	99	17?	45.0	....	Pennsylvania.
58.26	42.97	40.48	51.36	73.66	55.69	34.78	53.87	89	— 5	25.1	58.9	Baltimore, Maryland.
60.64	43.76	42.14	54.25	74.76	57.26	36.18	55.61	103	— 4	47.4	59.6	Potomac river, Maryland.
63.39	49.94	47.87	56.05	74.36	61.18	41.89	58.38	90	7	31.6	51.4	Near Norfolk, Virginia.
70.54	58.48	56.27	65.62	79.26	68.26	50.79	65.98	93	14	27.0	52.0	Charleston, South Carolina.
......	......	......	......	......	......	......	......	....	22	....	....	St. Augustine, Florida.
75.81	70.78	70.24	73.24	80.68	75.51	63.37	73.20	94	29	20.8	44.2	Indian river, Florida.
79.38	76.19	74.93	76.90	83.36	79.21	68.72	77.05	89	49	12.0	28.0	Florida.
78.40	74.07	72.42	76.59	82.94	78.45	66.19	76.04	94	31	17.9	45.1	Charlotte harbor, Florida.
76.07	67.82	66.34	72.96	79.37	74.01	60.53	71.72	91	30	19.3	41.7	Tampa Bay, Florida.
73.82	68.16	68.59	72.55	79.68	73.59	61.41	71.81	96	24	24.2	47.8	Interior of Florida.
71.35	60.00	61.64	......	......	69.73	54.32	......	90	10	....	....	Pensacola Bay, Florida.
70.58	56.87	59.51	68.34	81.34	68.82	53.74	68.06	98	9	29.9	59.1	Alabama.
......	......	......	......	82.69	......	......	......	94	....	....	....	Mississippi, (Gulf coast.)
74.25	61.37	61.98	......	......	......	56.89	......	....	17	....	....	Louisiana.
68.32	56.00	58.06	68.27	78.86	66.48	53.55	66.79	95	8	28.2	59.8	Louisiana.
66.05	48.80	43.68	......	......	58.34	......	......	....	17	....	....	Indian Territory.
64.90	47.68	41.37	60.91	76.76	60.78	42.83	60.32	93	0	32.7	60.3	Indian Territory.
63.58	46.53	39.60	......	74.10	69.72	......	......	91	19	....	....	Arkansas.
63.96	44.95	37.39	60.97	77.62	59.43	39.74	59.44	94	— 4	34.5	63.5	Indian Territory.
61.40	38.40	31.18	56.24	74.18	55.65	32.91	54.74	94	— 8	39.3	62.7	Kansas.
63.90	39.41	35.50	56.27	74.32	57.04	34.01	55.41	94	—12	38.6	67.4	Missouri.
59.91	38.48	33.37	54.90	74.69	55.26	32.16	54.25	100	—14	45.7	68.3	Missouri.
60.44	41.92	40.15	54.00	72.64	56.05	35.12	54.45	92	—14	36.5	68.5	Newport, Kentucky.
......	......	......	39.51	......	......	......	......	....	—15	....	....	Michigan.
45.97	32.37	25.46	......	......	44.49	20.47	......	81	—20	....	....	Michigan.
......	35.65	25.06	33.82	......	......	16.96	......	....	—24	....	....	Michigan.
......	......	......	39.72	......	......	......	......	....	—22	....	....	Green Bay, Wisconsin.
45.01	22.56	9.37	37.90	65.87	40.33	12.33	39.11	90	—36	50.9	75.1	Upper Mississippi river, Min.
53.13	25.73	11.67	42.78	71.77	44.35	15.88	43.69	94	—32	50.3	75.7	Minnesota.
60.13	29.60	17.73	44.66	74.36	51.81	21.80	48.16	94	—28	45.8	76.2	Des Moines river, Iowa.
58.38	33.51	25.77	52.94	72.72	51.77	28.34	51.44	93	—14	41.5	65.5	Kansas.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Kearney........	40.38	98.57	2360	23.07	30.93	33.34	43.30	60.09	67.80	72.62	72.01	58.77
Fort Laramie........	42.12	104.47	4519	30.68	33.02	30.00	42.80	57.11	67.18	75.05	73.10	58.77
Fort Atkinson	37.47	100.14	2330	29.60	37.04	43.34	51.20	66.38	71.47	77.02	74.94	64.43
Fort Arbuckle	34.36	97.40	1000 ?	36.77	47.07	53.76	59.77	70.25	73.71	78.26	78.04	69.05
Fort Belknap........	33.08	98.48	1600 ?	39.40	49.77	56.26	60.08	71.15	75.88	80.58	79.95	71.48
Phantom Hill........	32.30	99.45	2300 ?	42.33	51.10	56.50	63.68	74.74	75.96	80.47	79.70	72.04
Fort Chadbourne	31.38	100.40	2120	......	......	......	......	67.81	73.57	79.15	77.91	69.44
Fort Worth.........	32.40	97.25	1100 ?	40.88	51.42	58.49	61.49	73.79	76.83	81.73	79.62	71.27
Fort Graham........	31.56	97.26	900 ?	44.01	55.02	58.98	64.29	74.97	77.76	84.39	82.01	73.80
Fort Croghan........	30.40	98.31	1100 ?	42.89	55.03	62.13	66.67	75.70	78.56	81.31	82.27	74.66
Austin..............	30.18	97.45	500 ?	42.44	58.60	......	......	......	......	......	......	......
San Antonio	29.25	98.25	600	47.98	62.19	66.22	72.90	81.88	82.07	83.74	86.41	79.29
Fort Mason	30.48	99.15	1200 ?	......	......	......	72.42	77.68	75.74	77.62	80.70	73.15
Fort McKavett......	30.55	100.05	2060	......	......	......	67.16	76.13	75.72	79.07	79.66	71.19
Fort Terrett	30.23	100.16	1320	......	......	......	65.25	75.85	77.96	80.04	80.53	73.19
Fort Martin Scott....	30.10	99.05	1300	41.44	57.20	61.63	......	......	......	......	......	......
Fort Ewell..........	28.05	98.57	200 ?	......	......	......	......	......	......	......	......	79.54
Fort Merrill.........	28.17	98.00	150 ?	......	......	......	72.46	79.67	80.30	81.85	......	......
Fort Brown	25.54	97.26	50	55.48	69.77	71.04	75.81	80.40	81.14	82.51	83.05	80.30
Ringgold Barracks...	26.23	99.02	200 ?	52.77	69.84	73.50	77.67	83.41	83.60	85.69	87.00	81.68
Fort McIntosh	27.31	99.27	400 ?	50.59	67.72	71.54	77.58	84.52	84.67	87.36	89.61	82.16
Fort Duncan........	28.42	100.28	800 ?	47.96	63.03	66.62	74.42	82.76	84.80	85.67	88.17	80.71
Fort Inge...........	29.09	99.09	1000 ?	44.59	60.32	62.96	68.84	76.95	77.45	79.77	81.69	75.30
Fort Lincoln	29.22	99.33	900 ?	46.53	61.52	64.32	69.23	77.60	79.88	83.37	......	......
Fort Clarke.........	29.17	100.25	1000 ?	......	......	......	......	......	......	......	80.51	74.80
Fort Fillmore	32.13	106.31	3937	39.69	49.73	48.43	56.53	68.67	78.05	79.57	76.42	74.27
Fort Webster	32.42	108.00	6167	......	40.31	44.54	49.02	57.12	68.97	73.53	67.70	61.48
Fort Conrad (*a*)*.....	33.34	107.09	4576	33.27	45.11	53.31	58.05	66.65	73.06	78.36	78.15	86.62
Albuquerque	35.06	106.38	5032	......	......	......	......	......	......	......	......	......
Laguna	35.03	107.14	6000	38.91	46.24	......	......	......	......	......	......	......
Fort Union..........	35.54	104.57	6670	29.69	35.94	40.88	50.34	57.05	60.79	67.46	64.60	56.44
Santa Fē............	35.41	106.02	6846	......	......	......	......	......	......	......	......	59.56
Fort Massachusetts (*b*)	37.32	105.23	8365	......	......	......	......	......	......	......	......	48.67
Fort Defiance	35.44	109.15	8000 ?	......	......	......	......	52.72	64.75	68.16	66.96	50.07
Fort Yuma	32.43	114.36	120	......	......	......	......	......	87.00	88.65	88.10	83.55
San Diego	32.42	117.14	150	5,307	55.76	55.07	57.74	61.29	67.09	73.25	72.50	73.57
Rancho del Chino....	34.00	117.20	1000 ?	55.43	56.82	56.57	60.75	63.75	68.76	73.19	71.57	......
Jurupa (*c*)	34.00	117.25	1000	......	......	......	......	......	......	......	......	......
Monterey (*d*)........	36.36	121.52	140	56.11	54.63	53.53	53.87	55.56	59.00	61.55	......	......
San Francisco.......	37.48	122.26	150 ?	......	......	......	......	......	......	59.86	58.10	58.50
Benicia	38.03	122.08	64	48.20	52.43	52.16	56.89	58.65	65.71	70.09	67.82	67.98
Fort Miller	37.00	119.40	402	48.27	55.74	55.37	63.45	72.33	88.55	......	83.82	81.45
Camp Far West......	39.07	120.18	100	46.61	51.44	52.06	......	......	......	......	......	......
Fort Reading	40.30	122.05	674	......	......	......	58.66	......	79.00	80.37	78.75	72.33
Fort Orford.........	42.44	124.29	50 ?	......	......	......	......	......	60.47	61.33	62.69	59.18
Columbia Barracks...	45.40	122.30	50	42.74	42.19	40.66	48.08	59.81	67.11	......	......	......
Dalles of Columbia ..	45.36	120.55	350 ?	......	......	......	......	......	......	......	......	......
Fort Steilacoom	47.10	122.25	300 ?	43.26	42.60	40.18	46.49	57.10	63.00	63.51	63.88	57.06

* For notes of these positions see page 457.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1852.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
53.35	26.17	15.07	45.57	70.81	46.10	23.02	46.38	94	—28	47.6	74.4	Platte river, Nebraska.
49.56	25.23	19.92	43.30	71.78	44.52	27.87	46.87	97	—13	50.1	59.9	N. Fork of Platte riv., Nebras.
56.38	34.51	28.91	53.64	77.81	51.77	31.85	53.77	93	— 6	39.2	59.8	Arkansas river, Kansas.
63.11	45.10	38.82	61.26	76.67	59.09	40.89	59.48	93	0	33.5	59.5	N'r Canadian river, Ind. Ter.
66.15	49.55	44.11	62.49	78.80	62.39	44.43	62.03	98	2	32.0	60.0	Upper Brazos river, Texas.
64.16	50.28	46.10	64.94	78.71	62.16	44.88	62.67	106	0	43.3	62.7	Clear Fork of Brazos, Texas.
63.07	50.29	47.64	......	76.87	60.93	......	......	100	12	....	....	Concha river, Texas.*
65.61	51.52	46.30	64.59	79.39	62.80	46.20	63.25	101	5	37.7	58.3	Northern Texas.
67.93	56.65	50.84	66.08	81.39	66.13	49.96	65.89	112	15	46.1	50.9	Josē Maria village, Texas.
68.14	56.98	52.44	68.16	80.71	66.59	50.12	66.40	95	8	28.6	58.4	Texas.
......	......	......	......	......	......	......	......	....	10	....	....	Colorado river, Texas.
72.54	......	......	73.66	84.07	......	......	......	95	14	....	....	Texas.
68.27	54.32	49.37	......	78.02	65.25	......	......	96	20	....	....	Llano river, Texas.
64.29	53.09	47.82	......	78.15	62.86	......	......	95	17	....	....	San Saba river, Texas.
66.51	53.90	48.59	......	79.51	64.53	......	......	100	19	....	....	N. Fork of Llano riv., Texas.
......	......	......	......	......	......	......	......	....	7	....	....	Near Fredericksburg, Texas.
73.38	65.13	58.71	......	......	72.68	......	......	....	32	....	....	Neuces river, Texas.
......	......	......	......	......	......	......	......	100	....	....	....	Neuces river, Texas.
77.09	69.68	65.57	75.78	82.23	75.69	63.61	74.31	96	22	21.7	52.3	Rio Grande, Texas.
75.47	68.97	62.92	78.19	85.43	75.37	61.84	75.21	105	25	29.8	50.2	Rio Grande, Texas.
75.15	66.62	59.58	77.88	87.21	74.64	59.29	74.76	105	19	30.2	55.8	Rio Grande, Texas.
72.61	58.80	54.45	77.80	86.21	70.71	55.81	72.63	107	12	34.4	60.6	Rio Grande, Texas.
68.32	57.57	52.79	69.58	79.63	67.06	52.57	67.21	95	13	27.8	54.2	Leona river, Texas
......	......	......	70.38	......	......	......	......	94	12	....	....	Rio Seco, Texas.
68.46	58.38	53.21	......	......	67.18	......	......	....	26	....	....	Las Moras, Texas.
59.03	46.00	44.11	57.87	78.01	59.77	44.51	60.04	107	10	47.0	50.0	Rio Grande, Southern N. Mex.
52.11	38.11	40.63	50.23	70.07	50.57	......	......	100	12	....	....	Copper Mines, Rio Mimbres,
56.45	42.87	40.18	59.67	76.52	61.98	39.52	59.42	101	4	41.6	55.4	N'r Valverde, N. M. [N. M.
......	42.93	38.43	......	......	......	......	......	....	21	....	....	New Mexico.
......	......	......	......	......	......	......	......	....	21?	....	....	San Josē river, New Mexico.
47.91	34.27	35.05	49.42	64.28	46.21	33.56	48.37	87	— 9	38.6	57.4	Moro river, New Mexico.
47.87	34.39	29.62	......	......	47.27	......	......	....	13	....	....	New Mexico.
40.12	24.39	19.15	......	......	37.73	......	......	....	— 6	....	....	Sangre de Cristo Val., N. M.
45.63	32.45	28.70	......	66.62	42.72	......	......	90	2	....	....	Cañoncito, Western N. Mex.
72.90	61.46	55.47	......	87.92	72.64	......	......	108	32	....	....	Colorado river, California.
65.13	57.19	51.71	58.03	70.95	65.30	53.51	61.95	90	34	28.1	27.9	Coast of California.
......	......	......	60.36	71.17	......	......	......	95	35	....	....	Rio Santa Ana, California.
64.81	56.03	51.12	......	......	......	......	......	....	36	....	....	Rio Santa Ana, California.
......	......	......	54.32	......	......	......	......	81	36	....	....	Coast of California.
55.46	54.62	50.09	......	......	56.12	......	......	....	37	....	....	California.
60.58	55.86	49.04	55.90	67.87	61.47	49.89	58.78	98	34	39.2	24.8	California.
66.33	52.51	48.54	63.72	......	66.76	50.85	......	116	28	....	....	San Joaquin valley, California.
......	......	......	......	......	......	......	......	....	30	....	....	Marysville, California.
59.76	51.80	43.42	......	79.37	61.30	......	......	106	31	....	....	Upper Sacramento val., Cal.
54.70	50.59	44.15	......	61.49	54.82	......	......	77	31	....	....	Ewing har., n'r C. Orford, Or'n.
53.90	45.08	33.20	49.52	......	......	39.37	......	98	22	....	....	Oregon, (Fort Vancouver.)
53.57	41.25	24.95	......	......	......	......	......	....	— 5	....	....	Columbia river, Oregon.
51.69	43.75	33.28	47.92	53.46	50.83	39.71	47.98	93	0	45.0	48.0	Puget's Sound, Wash'n Ter.

* On Oak Creek, near the Colorado river, after September.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1852.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Sullivan	4.30	3.60	2.90	4.10	0.30	2.20	4.00	4.80	3.40	3.50	4.20	2.50	7.30	11.00	11.10	10.40	39.80
Fort Preble	4.79	2.56	3.59	8.54?	2.82	5.02	3.19	8.31?	3.42	5.30	6.38	6.10	14.95?	16.52?	15.10	13.45	60. 2?
Fort Constitution	3.51	2.55	2.26	6.60	1.42	2.79	2.53	6.20	2.71	2.92	4.35	4.65	10.28	11.52	9.98	10.71	42.49
Fort Independence	3.50	1.32	1.26?	4.00	1.20	2.71	1.92	5.35	1.60	1.42	2.94	3.00	6.46?	9.98	5.96	7.82	30.22
Fort Adams	4.43	5.41	5.90	8.67	3.92	1.70	2.10	6 90	2.55	2.60	6.62	6.53	18.49	10.70	11.77	16.37	57.33
Fort Trumbull	4.38	6.02?	6.54	7.93	3.71	4.23	2.94	14.55?	5.22	5.79	7.82	10.58?	18.18	21.72?	18.83	20.98?	79.71
Fort Hamilton	1.94	2.27	4:11	6.06	3.20	2.80	2.64	4.46	1.99	2.25	4.14	3.80	13.37	9.90	8.38	8.01	39.66
Fort Columbus	2.92	3.08	4.43	4.74	2.24	2.11	3.25	6.20	2.29	2.06	6.07	4.45	11.41	11.56	10.42	10.45	43.84
West Point	1.80	3.80	2.68	4.66	1.85	2.30	4.67	6.39	2.39	2.99	4.47	5.31	9.19	13.36	9.85	10.91	43.31
Watervliet Arsenal	2.88	1.10	2.06	4.16	1.67	1.28	2.87	2.73	2.67	2.67	4.70	2.35	7.89	6.88	10.04	6.33	31.14
Plattsburg Barracks	0.90	1.33	2.02	3.42	....	....	....	....	....	....	....	....	....	....	....	....	....
Madison Barracks	2.90	2.79	5.89	3.29	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Ontario	2.76	2.14	3.66	0.68?	0.86	4.06	1.18	0.53	3.31	4.80	4.47	4.09	5.20	5.77	12.58	8.99	32.54
Fort Niagara	1.00	1.71	4.46	2.87	2.56	2.91	1.98	2.60	5.06	3.30	2.62	5.97	9.89	7.49	10.98	8.68	37.04
Alleghany Arsenal	1.80	3.34	2.03	9.27	3.84	2.76	2.55	2.76	3.09	2.24	2.67	5.01	15.14	8.07	8.00	10.15	41.36
Carlisle Barracks	1.18	2.23	3.96	4.69	2.96	3.36	3 51	4.38	1.45	1.64	6.27	3.61	11.61	11.25	9.36	7.02	39.24
Fort Mifflin	2.40	2.48	4.60	8.20	5.30	4.55	5.45	4.40	1.40	3.30	3.80	5.45	18.10	14.40	8.50	10.33	51.33
Fort McHenry	2.60	3.60	3.90	7.80	1.70	2.70	5.70	4.60	2.20	2.60	7.90	6.20	13.40	13.00	12.70	12.40	51.50
Fort Washington	1.54	3.23	2.88	7.05	2.29	3.51	2.89	11.54	1.75	2.20	6.90	4.64	12.22	17.94	10.85	9.41	50.42
Fort Monroe	0.93	1.18	1.82	2.72	1.53	1.89	3.83	4.90	1.55	1.92	2.06	2.94	6.07	10.62	5.53	5.05	27.27
Fort Moultrie	0.51	1.21	4.35	2.96	4.17	8.86	5.43	4.15	11.70	1.20	2.12	4.60	11.48	18.44	15.02	6.32	51.26
Fort Marion	0.32	0.59	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Pierce	....	....	*3.05	4.80	1.30	6.85	8.00	4.30	7.00	0.60	1.82	2.30	9.15	19.15	9.42	....	....
Key West Barracks	1.82	3.67	8.74	2.17	0.40	8.51	6.16	6.03	6.22	4.18	3.00	3.41	11.31	20.70	13.40	8.90	54.31
Fort Myers	1.54	1.00	11.77	5.70	3.25	18.13	12.02	7.60	9.54	0.40	0.98	2.34	20.72	37.75	10.92	4.88	74.27
Fort Brooke	0.95	0.85	6.40	3.05	3.06	13.20	10.95	14.30	10.00	0.30	3.20	3.00	12.51	38.45	13.50	4.80	69.26
Fort Meade	0.69	0 27	2.08	2.13	2.31	11.71	11.41	6.35	6.60	1.32	0.15	1.32	6.52	29.47	8.07	2.28	46.34
Fort Barrancas	0.97	3.40	....	....	....	....	8.02	16.25	0.65	1.10	7.80	3.51	....	....	9.55	7.88	....
Mount Vernon Arsenal	1.92	1.95	1.52	6.24	6.75	1.56	1.92	9.64	0.70	2.40	9.74	7.15	14.51	13.12	12.84	11.02	51.49
East Pascagoula	....	....	....	....	8.85	1.85	6.04	8.54	0.65	....	....	....	....	16.43	....	....	....
New Orleans Barracks	0.80?	1.45	4.24	5.25	....	....	....	....	....	2.83	7.00	5.30	....	....	....	7.55	....
Baton Rouge Barracks	1.56	6.73?	2.19	8.29	6.08	1.33	5.64	2.26	3.30	2.81	9.32	3.95	16.56	9.23	15.43	12.24	53.46
Fort Towson	....	....	....	....	....	....	....	....	....	4.88	4.84	0.77	....	....	....	....	....
Fort Washita	1.37	4.80	5.40	1.62	4.61	5.48	2.90	4.45	6.43	5.95	3.77	0.29	11.63	12.83	16.15	6.46	47.07
Fort Smith	....	....	....	....	....	4.58	4.96	3.94	3.90	4.89	4.05	1.62	....	13.48	12.84	....	....
Fort Gibson	1.58	5.67	2.24	2.95	6.72	5.85	6.12	4.99	4.38	5.50	4.91	0.74	11.91	16.96	14.79	7.99	51.65
Fort Scott	2.22	0.11	0.98	2.17	10.74	6.36	4.45	2.90	2.40	6.23	5.98	1.98	13.89	13.71	14.61	4.31	46.52
Jefferson Barracks	3.34	1.73	7.19	1.39	8.12	11.85	2.72	3.24	2.97	4.81	3.80	3.97	16.70	17.81	11.58	9.04	55.13
St. Louis Arsenal	1.21?	1.48	8.00	2.54	4.44	7.82	1.08	2.12	1.14	4.73	2.75	2.90	14.98	11.02	8.62	5.59	40.21
Newport Barracks	....	....	4.13	6.04	2.11	4.20	1.10	3.40	3.30	2.65	4.32	8.53?	12.28	8.70	10.27	....	....
Fort Gratiot	1.28	1.36	4.57	2.34	0.94	....	....	....	....	....	....	....	7.85	....	....	....	....
Fort Mackinac†	....	....	....	....	....	....	2.52	0.76?	1.40	3.94	0.63	3.46	....	....	5.97	....	....
Fort Brady	....	....	....	....	....	....	....	....	....	4.11	1.42	2.99	....	....	....	....	....
Fort Howard	1.77	0.66	3.87	2.97	2.15	....	....	....	....	....	....	....	8.99	....	....	....	....
Fort Ripley	0.13	0.42	6.61	2.37	3.96	2.10	3.92	1.37	6.40	1.27	3.10	2.87	12.94	7.39	10.77	3.42	34.52
Fort Snelling	0.06	0.14	2.04	2.49	4.72	0.08	2.74	0.89	0.72	0.82	0.22	0.15	9.25	3.71	1.76	0.35	15.07
Fort Dodge	1.09	0.58	1.55	2.16	2.05	5.16	1.57	0.89	2.51	4.10	1.92	2.27	5.76	7.62	8.53	3.94	25.85

* Last 15 days. † The measurement at Forts *Mackinac* and *Brady* were inaccurate for the larger portion of the year.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1852.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Leavenworth	0.96	0.28	1.35	5.50	4.71	6.53	4.60	4.22	1.61	2.64	3.53	0.60	11.56	15.35	7.78	1.84	36.53
Fort Kearney	0.12	0.25	0.28	0.73	5.23	3.02	2.69	1.84	2.17	1 35	2.24	0.73	6.24	7.55	5.76	1.10	20.65
Fort Laramie	0.72	1.10?	15.50*	1.25	7.29	4.08	1.88	1.46	2.74	1.70	6.42	1.23	10.09	7.42	10.86	3.05	31.42
Fort Atkinson	....	....	....	....	....	....	....	5.10	3.85	6.81	1.39	1.60	....	....	12.05	....	....
Fort Arbuckle	1.86	4.21	1.21	1.41	7.30	5.30	5.09	4.82	5.04	7.16	2.50	0.12	9.92	15.21	14.66	6.29	46.08
Fort Belknap	....	....	....	....	....	....	....	....	....	5.90	3.15	0.05	....	....	....	....	....
Phantom Hill	....	....	....	....	....	....	....	....	4.82	4.81	2.45	0.00	....	....	12.08	....	....
Fort Chadbourne	....	....	....	....	6.25	5.00	5.98	2.32	4.01	3.64	0.80	0.00	....	13.30	8.45	....	....
Fort Worth	1.35	3.75	5.20	1.73	4.27	3.81	3.14	6.41	5.60	5.40	2.60	0.10	11.10	13.36	13.60	5.20	43.26
Fort Graham	0.64	5.25	8.75	4.00	2.65	3.68	4.90	3.76	1.53	3.69	5.70	0.31	15.30	12.34	10.92	6.20	44.76
Fort Croghan	1.70	6.00	9.18	2.79	2.21	3.78	3.75	3.09	5.96	3.35	3.33	0.57	14.18	10.62	12.64	7.27	44.71
San Antonio	1.00	4.30	6.00	0.70	2.66	5.09	3.53	1.75	3.49	2.70	....	....	9.36	10.37	....	....	....
Fort Mason	....	....	....	1.90	8.94	3.46	6.64	1.54	4.70	2.54	1.50	0.01	....	11.64	7.74	....	....
Fort McKavett	....	....	....	0.59	4 75	4.84	1.84	0.85	3.42	5.26	1.59	0.01	....	7.53	10.27	....	....
Fort Terrett	....	....	....	1.08	5.15	4.27	3.04	1.61	5.72	3.92	1.23	0.00	....	8.92	10.87	....	....
Fort Martin Scott	0.60	3.10	12 40	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Ewell	....	....	....	....	....	....	....	....	....	1.41	0.15	0.45	....	....	....	....	....
Fort Merrill	....	....	....	....	....	1.13	8.76	....	....	....	....	....	....	....	....	....	....
Fort Brown	0.50	0.60	0.35	0.00	4.05	5.05	0.70	3.90	8.50	4.95	0.90	0.00	4.40	9.65	14.35	1.10	29.50
Ringgold Barracks	1.00	0.88	0.65	0.68	2.28	0.96	0.82	1.44	4.24	4.78	0.01	0.08	3.61	3.22	9.03	1.96	17.82
Fort McIntosh	0.46	1.05	1.41	0.00	1.18	1.19	1.52	0.23	2.06	1.13	0.24	0.06	3.59	2.94	3.43	1.57	11.53
Fort Duncan	0.28	2.30	6.27	0.00	2.13	2.81	6.70	0.32	6.10	1.22	0.24	0.00	8.40	9.83	7.56	2.58	28.37
Fort Inge	0.34	1.40	2.62	0.15	5.76	8.07	6.82	0.12	2.83	3.19	1.52	0.00	8.53	15.01	7.54	1.74	32.82
Fort Lincoln	0.26	2.96	4.90	0.23	4.26	3.38	1.10	....	....	....	....	....	9.39	....	....	....	....
Fort Clarke	....	....	....	....	....	....	....	0.87	3.50	2.09	1.91	0.00	....	....	7.50	....	....
Fort Fillmore	....	0.29	0.04	0.20	0.40	1.74	3.84	1.00	1.47	0.77	2.66	0.00	0.64	6.58	4.90	....	....
Fort Webster	....	1.51	0.13	4.45	1.23	4.89	4.79	4.29	3.47	1.19	3.48	0.30	4.81	13.97	8.14	....	....
Fort Conrad	0.01	0.03	0.00	0.07	0.25	2.15	0.65	1 32	1.10	1.63	1.34	0.08	0.32	4.12	4.07	0.12	8.63
Albuquerque	....	....	....	0.70	0.07	8.15?	0.07	4.06	0.19	0.35	0.16	0.02	0.77	12.28	0.70	....	....
Fort Union	0.48	0.59	0.00	0.24	0.73	7.05	2.73	5.49	3.04	3.44	2.83	0.02	0.97	15.27	9.31	1.09	26.64
Santa Fe	....	....	....	....	....	....	....	....	0.91	2.55	1.65	1.36	....	....	5.11	....	....
Fort Massachusetts	....	....	....	....	....	....	....	....	....	1.84	6.34	1.45	....	....	....	....	....
Fort Defiance	....	....	....	....	0.89	2.35	0.90	1.30	1.82	1.60	1.22	1.30	....	4.55	4.64	....	....
Fort Yuma	....	....	....	....	....	0.00	0.28	0.33	1.45	0.00	0.35	0.04	....	0.61	1.80	....	....
San Diego	0.58	1.84	1.87	0.85	0.32	0.00	0.00	0.40	0.00	0.06	1.45	4.50	3.04	0.40	1.51	6.92	11.87
Rancho del Chino	....	....	....	....	....	0.00	0.00	....	....	....	....	....	....	....	....	....	....
Jurupa	....	....	....	....	....	....	....	....	0.00	0.00	2.89	7.50	....	....	2.89	....	....
Monterey	0.40	0.30	6.12	0.92	0.10	0.16	0.00	0.00	....	....	....	....	7.14	0.16	....	....	....
San Francisco	....	....	....	....	....	....	0.00	0.00	0.00	0.69	4.92	12.07	....	....	5.61	....	....
Benicia	0.36	0.00	4.78	0.03	0.00	0.03	0.00	0.00	0.01	1.05	2.28	9.03	4.81	0.03	2.34	9.39	16.57
Fort Miller	0.42	0.61	15.59	2.59	0.60	0.00	0.00	0.00	0.07	0.07	8.80	20.60	18.78	0.00	8.94	21.63	49.35
Camp Far West	1.60	0.13	10.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fort Reading	....	....	....	2.87	....	1.06	0.00	0.00	0.00	0.48	8.48	11.18	....	1.06	8.96	....	....
Fort Orford	....	....	....	....	....	0.33	0.31	1.00	....	....	12.03	16.91	....	1.64	....	....	....
Columbia Barracks	9.31	4.77	4.26	6.56	3.49	1.77	....	....	....	1.55	7.37	13.37	14.31	...	....	27.45	....
Dalles of the Columbia	....	....	....	....	....	....	....	....	....	0.25	2.75	8.01	....	....	....	....	....
Fort Steilacoom	11.50	5.43	5.12	3.34	0.12	0.82	0.93	1.78	1.02	3.72	6.17	8.84	8.58	1.87	10.91	25.77	47.13

*1.55? "Snow 8.60."—An apparent error of entry.

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Sullivan........	162	204	89	28	13	48	18	11	20	70	46	109
Fort Preble..........	196	170	104	41	68	41	8	10	15	52	57	98
Fort Constitution....	199	167	79	54	59	31	33	16	35	38	82	69
Fort Independence...	190	176	73	32	24	58	6	38	14	81	19	54
Fort Adams..........	169	197	82	27	58	29	25	17	61	49	72	47
Fort Trumbull.......	184	182	99	24	2	89	2	32	2	102	16	106
Fort Hamilton.......	213	153	91	21	62	28	24	19	38	37	54	87
Fort Columbus.......	219	147	103	23	41	60	13	29	37	45	44	85
West Point..........	168	198	117	41	80	10	3	26	89	26	15	100
Watervliet Arsenal..	218	148	70	37	22	10	1	6	119	10	122	41
Plattsburg Barracks(*a*)	45	76	9	27	20	17	4	2	26	9	12	15
Madison Barracks (*a*).	39	82	22	42	7	24	9	10	17	18	26	66
Fort Niagara........	170	196	93	46	11	22	39	41	17	73	62	62
Alleghany Arsenal...	156	210	153	35	44	42	23	17	24	65	41	21
Carlisle Barracks.....	179	187	93	26	18	16	77	24	24	20	106	58
Fort Mifflin.........	188	178	102	22	17	46	25	34	25	51	32	59
Fort McHenry.......	199	167	108	19	49	53	11	18	24	36	71	58
Fort Washington....	179	187	118	17	40	46	10	58	26	62	18	78
Fort Monroe.........	199	167	123	7	13	78	14	39	9	119	8	62
Fort Moultrie........	220	146	84	9	44	58	22	33	36	73	45	45
Fort Pierce..........	216	150	78	0	34	36	75	32	57	21	74	16
Key West Barracks ..	239	127	82	0	52	64	70	57	40	25	11	19
Fort Myers..........	239	127	92	0	44	26	44	27	28	16	68	28
Fort Brooke.........	227	139	89	0	13	78	47	44	20	32	76	41
Fort Meade	255	111	97	0	60	22	67	33	41	19	85	26
Mt. Vernon Arsenal..	232	134	85	2	39	64	31	49	30	39	31	52
Baton Rouge Barracks	219	147	96	2	64	45	93	19	49	22	37	24
Fort Washita........	200	166	71	1	41	31	38	44	85	38	44	25
Fort Smith (*b*).......	168	107	73	2	31	32	52	12	19	38	22	58
Fort Gibson.........	192	174	98	4	38	34	14	41	53	12	5	20
Fort Scott...........	190	176	89	11	45	49	25	28	67	52	35	30
Jefferson Barracks...	231	135	89	12	39	18	48	27	28	24	81	39
St. Louis Arsenal....	228	138	83	8	48	14	45	11	50	28	67	28
Newport Barracks...	205	161	102	12	27	68	21	9	50	28	67	28
Fort Gratiot (*c*)......	63	89	25	33	12	26	5	14	18	32	21	22
Fort Mackinac (*d*)....	139	166	44	64	54	16	49	35	18	11	49	49
Fort Brady (*e*).......	92	182	42	66	22	9	65	26	31	32	48	15
Fort Howard (*c*).....	70	82	19	24	35	7	8	3	23	16	20	6
Fort Ripley	168	198	85	56	63	34	22	32	79	39	47	31
Fort Snelling........	264	102	44	28	28	58	16	50	25	79	31	66
Fort Dodge..........	163	203	81	47	31	35	32	27	10	60	29	106
Fort Leavenworth....	188	178	81	22	23	58	2	54	37	64	7	84
Fort Kearney........	191	175	60	33	89	60	22	72	44	7	11	28
Fort Laramie........	191	175	74	61	52	83	24	13	1	10	18	109
Fort Atkinson.......	244	122	45	15	68	27	40	58	73	24	22	28

OBSERVATIONS FOR 1852.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
53	161	192	635	73	184	43	127	82	275	279	826	186	513	435	1087
271	856	165	607	33	104	39	124	60	159	207	558	228	596	391	1143
238	499	125	368	133	487	63	175	139	383	151	341	327	581	279	679
95	224	233	936	24	90	152	463	55	154	323	1028	76	240	217	818
233	1032	116	516	101	386	70	232	246	855	198	594	288	668	189	757
8	21	356	952	9	40	128	312	7	16	429	870	63	133	426	965
250	536	113	214	98	199	77	180	151	397	149	403	214	575	348	972
163	379	240	590	52	115	116	277	147	304	180	377	175	414	342	844
322	723	40	94	13	24	102	167	356	527	104	181	61	146	401	1044
89	245	41	106	4	11	22	68	478	1414	39	105	490	1378	165	524
79	142	68	148	17	26	9	13	102	239	38	161	48	105	59	112
30	72	95	209	35	109	40	104	68	175	73	182	103	262	18	39
44	185	87	333	155	456	164	426	67	212	293	834	249	827	247	922
176	260	169	271	91	144	66	103	95	233	259	879	165	499	83	193
74	174	63	170	309	790	98	214	96	211	79	145	425	1129	231	564
70	178	183	531	101	221	137	323	99	199	204	439	127	346	238	759
196	413	211	540	45	92	74	189	94	198	143	316	285	666	232	655
160	531	185	564	39	101	234	624	104	307	247	704	72	218	314	1328
53	108	314	730	58	128	157	315	38	51	476	959	33	78	249	524
177	440	232	641	89	185	133	344	146	390	291	687	180	316	180	436
134	343	144	485	300	968	130	440	229	496	83	194	294	535	63	126
208	829	255	895	280	951	227	691	159	453	100	283	46	141	76	286
178	431	103	239	177	414	106	203	112	279	62	134	274	644	114	335
52	101	310	483	187	311	178	305	80	136	130	271	302	474	166	333
240	309	89	127	269	316	132	146	164	185	76	99	340	430	106	155
158	347	258	476	126	249	197	361	120	274	156	295	123	247	210	451
254	426	181	299	371	595	78	135	196	352	87	189	150	231	96	152
166	420	125	308	154	350	175	480	341	910	153	386	176	387	101	261
126	234	130	219	209	337	49	93	77	153	39	90	108	234	62	132
152	271	137	73	57	76	162	356	211	456	46	71	20	25	81	119
181	375	196	332	101	118	112	217	270	619	209	573	140	287	119	273
157	449	73	175	192	357	109	218	114	200	96	200	323	873	157	437
192	420	57	126	180	281	44	83	200	349	111	169	268	594	113	327
107	393	272	486	85	154	37	103	199	287	184	365	152	284	208	523
49	113	104	250	18	43	56	111	74	125	130	294	84	149	88	228
216	476	66	164	194	446	141	402	72	156	45	132	196	502	197	566
90	235	36	93	260	696	102	264	122	285	126	328	192	637	59	174
140	358	29	65	32	72	12	30	91	230	66	144	82	163	25	55
251	560	137	283	87	144	129	289	315	629	156	339	188	450	125	281
111	207	233	388	64	129	202	401	100	185	315	584	124	241	264	383
124	266	142	263	127	390	108	377	41	148	242	820	117	329	424	950
91	150	233	380	8	8	215	385	149	319	257	535	28	38	335	727
358	1111	240	566	88	185	287	785	176	537	28	65	43	80	111	340
209	670	332	1024	97	338	53	219	3	16	42	140	71	151	436	1546
273	977	109	305	161	290	233	550	294	836	95	258	90	219	110	311

SUMMARY OF WEATHER

STATIONS.	WEATHER. DAYS.				WINDS. DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Arbuckle	286	80	66	1	30	24	30	64	59	41	30	24
Fort Belknap	287	79	47	2	57	10	11	37	76	33	23	17
Phantom Hill	274	92	55	3	56	15	42	13	160	22	61	8
Fort Worth	209	157	64	3	46	43	21	85	46	23	20	43
Fort Graham	224	142	71	2	27	24	11	50	124	73	18	27
Fort Croghan	212	154	83	3	21	38	26	103	31	37	26	46
Fort Mason (*b*)	166	79	54	0	15	16	12	31	43	46	9	23
Fort McKavett (*b*)	202	93	52	0	19	15	17	67	82	14	8	12
Fort Terrett (*b*)	206	69	48	0	3	17	39	160	2	10	32	17
Ft. Ewell (Merrill) (*f*)	192	52	39	0	21	23	29	69	43	12	8	6
Fort Brown	263	103	41	0	18	43	64	110	69	30	13	16
Ringgold Barracks	244	122	55	0	36	23	39	127	80	4	2	16
Fort McIntosh	224	142	56	0	19	47	40	173	14	5	4	36
Fort Duncan	290	76	58	0	33	28	123	135	8	8	6	67
Fort Inge	232	134	62	0	21	67	120	35	4	1	6	17
Fort Lincoln (*g*)	96	104	48	1	32	21	10	41	51	21	10	8
Fort Clarke (*h*)	95	58	20	0	32	5	18	49	29	3	5	4
Fort Fillmore	309	57	53	2	27	27	34	43	36	42	45	42
Fort Webster (*i*)	288	47	71	13	48	29	34	24	25	34	97	29
Fort Conrad	296	70	42	7	60	20	9	5	62	23	80	11
Albuquerque (*k*)	248	58	49	3	26	20	29	38	56	20	46	9
Fort Union	265	101	62	19	40	14	15	23	21	23	34	99
Fort Massachusetts (*h*)	103	50	19	21	21	17	1	11	31	36	8	25
Fort Defiance (*l*)	176	69	35	12	14	30	18	12	11	49	67	37
Fort Yuma (*m*)	175	40	16	0	35	10	29	17	38	13	32	13
San Diego	216	150	52	0	9	34	58	23	46	89	80	15
Rancho del Chino (*n*)	233	103	33	0	0	4	2	16	28	203	46	8
Monterey (*o*)	131	82	28	0	18	6	1	2	4	32	50	33
San Francisco (*p*)	82	102	39	0	7	2	1	7	11	18	45	91
Benicia	230	136	59	0	1	2	32	5	16	53	220	2
Fort Miller (*q*)	254	65	61	0	14	18	52	35	18	25	25	11
Fort Reading (*m*)	171	43	32	3	24	3	1	7	36	5	6	13
Fort Orford (*m*)	121	93	70	2	11	4	1	65	7	12	0	105
Columbia Barracks (*r*)	123	122	107	17	12	23	32	64	10	24	15	56
Fort Steilacoom	119	247	146	25	8	29	27	91	14	78	41	85

(*a*) First four months.
(*b*) Last nine months.
(*c*) First five months.
(*d*) Two months, May and June not included.
(*e*) June, July, and August, not included.

(*k*) Last ten months.
(*l*) Last eight months.
(*m*) Last seven months.
(*n*) September not observed.
(*o*) First seven months.

(*f*) Eight months; April to July at Fort Merrill, and September to December at Fort Ewell.

(*g*) Six and a half months, to July.
(*h*) Last five months.
(*i*) January omitted.

(*p*) Last six months.
(*q*) July and part of June not observed.
(*r*) Four months, Feb., July, Aug., and Sept., omitted.

OBSERVATIONS FOR 1852.

WINDS.															
No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
120	202	96	127	122	182	254	551	235	608	165	412	122	174	94	164
228	523	39	74	46	69	148	330	303	566	133	245	92	143	70	185
226	483	60	138	170	231	53	160	639	1313	88	214	149	243	34	55
185	343	171	291	86	170	339	920	185	513	92	211	80	178	173	337
108	284	94	192	43	101	201	441	495	929	291	690	72	158	109	238
86	293	151	392	104	262	412	1411	122	427	148	438	105	321	185	560
59	147	64	149	49	99	126	312	171	413	183	613	37	69	93	269
76	145	59	103	70	108	269	527	330	690	54	266	34	57	48	111
12	28	67	113	155	215	641	1053	10	21	41	76	130	225	67	119
83	152	92	240	116	179	278	727	173	504	48	108	31	61	24	59
71	170	174	358	256	588	442	1014	275	682	120	276	52	116	65	141
146	416	90	233	158	387	508	1529	319	916	17	35	8	12	66	189
77	133	190	299	161	248	692	1197	55	75	21	26	14	15	144	248
133	417	111	240	492	1111	541	1593	32	59	33	72	17	26	101	268
86	180	268	490	482	1022	138	344	15	30	5	21	23	70	67	152
129	182	84	120	41	59	164	224	206	291	85	93	40	72	30	53
130	290	18	33	72	149	196	475	118	270	13	17	18	30	16	38
108	226	109	220	136	308	174	325	145	245	168	327	179	382	168	432
192	358	115	178	136	202	95	140	102	171	137	300	389	720	115	271
242	684	81	198	34	51	19	32	247	748	93	275	322	775	45	105
103	207	81	152	115	266	152	326	222	422	80	247	182	344	35	98
162	393	54	117	59	148	92	238	83	196	91	214	135	346	397	1066
82	249	70	223	5	15	43	126	124	351	142	423	32	101	102	253
55	155	119	333	72	159	49	115	42	84	198	364	268	357	150	365
141	270	40	91	115	175	67	205	154	422	52	140	128	247	53	161
38	46	134	153	232	285	93	113	184	268	356	698	319	549	60	84
0	0	16	41	6	10	63	143	113	243	811	1887	185	652	31	85
71	136	23	31	6	8	8	17	17	41	129	385	199	425	131	260
27	98	7	26	6	15	28	105	44	165	73	255	179	736	366	1497
5	13	8	20	129	335	20	52	63	132	211	727	880	3145	8	26
54	92	71	123	208	316	141	281	72	132	101	186	101	203	44	108
97	195	10	15	4	4	29	44	145	385	21	26	25	33	51	99
43	85	17	22	4	7	258	816	27	80	48	110	1	5	419	1381
49	78	93	216	130	323	256	622	41	100	95	251	61	125	225	451
32	98	118	307	109	173	366	571	55	161	311	1992	165	301	339	921

MONTH OF JANUARY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	23.83	27.25	30.90	28.06	27.51	45	— 7	17.5	34.5	38	90	19	61	2	4
Fort Preble	18.64	22.87	28.38	23.13	23.25	40	— 4	16.7	27.3	61	212	8	24	0	0
Fort Constitution	18.67	23.19	26.87	28.06	24.20	44	— 2	19.8	26.2	30	69	22	58	12	41
Fort Independence	24.87	26.54	34.00	26.51	27.98	52	6	24.0	22.0	9	26	41	147	2	8
Fort Adams	27.84	29.22	34.16	32.19	30.85	48	10	17.2	20.8	53	184	14	66	4	17
Fort Trumbull	25.50	29.80	33.60	29.50	29.60	47	6	17.4	23.6	1	1	39	121	0	0
Fort Hamilton	26.16	27.93	34.67	30.12	29.72	51	8	21.3	21.7	17	22	27	58	0	0
Fort Columbus	28.68	30.74	35.61	33.29	32.08	46	9	13.9	23.1	14	23	33	87	2	3
West Point	22.06	24.83	31.64	26.58	26.28	53	2	26.7	24.3	21	90	1	3	0	0
Watervliet Arsenal	25.87	30.29	35.00	29.41	30.14	48	2	17.9	28.1	3	8	12	31	0	0
Fort Ontario	21.48	22.77	29.38	25.87	24.87	46	— 6	21.1	30.9	0	0	51	126	0	0
Fort Niagara	25.06	27.45	30.22	26.67	27.35	44	4	16.7	23.3	7	30	9	26	13	35
Alleghany Arsenal	25.03	28.70	35.60	27.90	29.31	48	5	18.7	24.3	5	11	18	36	5	7
Carlisle Barracks	23.45	28.42	35.58	28.30	28.94	56	1	27.1	27.9	23	77	0	0	28	71
Fort Mifflin	25.58	31.48	37.22	29.97	31.06	53	7	21.9	24.1	5	26	17	71	6	16
Fort McHenry	27.22	30.93	39.41	31.54	32.27	51	9	18.7	23.3	45	89	13	40	0	0
Fort Washington	27.74	33.03	41.80	33.45	34.00	53	8	19.0	26.0	30	88	12	23	4	9
Fort Monroe	35.48	37.16	43.71	39.00	38.84	53	20	14.2	18.8	13	44	17	28	0	0
Fort Moultrie	42.16	46.67	55.09	47.00	45.23	68	27	22.8	18.2	41	71	25	50	8	9
New Smyrna	51.83	60.33	63.17	54.44	57.44	79	35	21.6	22.4	20	67	9	29	9	27
Fort Pierce	56.96	60.19	64.51	58.48	60.03	80	41	20.0	19.0	62	96	15	48	6	18
Key West	65.45	68.09	70.58	67.93	68.01	80	55	12.0	13.0	74	223	15	46	0	0
Fort Myers	60.00	62.83	68.32	63.22	63.59	81	51	17.4	12.6	31	83	8	14	16	30
Fort Brooke	52.87	58.12	64.67	60.86	58.93	77	42	18.1	16.9	2	4	44	69	10	13
Fort Meade	51.77	58.74	68.03	58.90	59.36	78	33	18.6	26.4	48	64	14	15	2	2
Fort Barrancas	42.70	48.72	57.42	47.74	49.57	66	30	16.4	19.6	54	160	11	32	0	0
Mount Vernon Arsenal	41.03	45.77	56.20	46.93	47.48	75	28	27.5	19.5	42	94	32	59	13	27
New Orleans Barracks	44.90	49.17	58.85	49.09	50.65	74	32	23.4	18.6	9	32	41	96	46	114
Baton Rouge Barracks	38.38	47.54	58.54	45.06	47.38	69	27	21.6	20.4	37	63	26	42	31	48
Fort Towson	33.80	39.00	53.07	42.00	41.78	69	12	27.1	29.9	53	119	16	24	28	44
Fort Washita	34.58	39.12	52.35	42.16	42.05	69	12	27.0	30.0	18	49	11	28	21	53
Fort Smith	33.30	35.96	49.77	42.60	40.20	68	12	27.8	28.2	16	25	13	19	23	30
Fort Gibson	33.45	37.93	48.09	39.06	39.63	66	10	26.4	29.6	35	56	6	8	0	0
Fort Scott	29.61	33.96	42.12	35.28	35.24	62	3	26.8	32.2	22	40	12	14	11	13
Jefferson Barracks	30.90	34.29	43.25	36.77	36.30	66	10	29.7	26.3	14	31	8	19	12	31
St. Louis Arsenal	27.32	32.00	41.68	32.00	33.25	63	10	29.7	23.3	27	62	9	13	3	4
Newport Barracks	32.19	33.96	40.25	35.70	35.52	56	20	20.5	15.5	19	43	21	42	1	1
Fort Mackinac	19.06	22.61	26.77	22.96	22.85	40	—16	17.2	38.8	11	35	5	11	14	41
Fort Brady	14.30	24.16	27.00	20.80	21.38	39	—21	17.6	42.4	13	41	4	8	28	71
Fort Ripley	6.32	10.63	23.61	13.87	13.61	45	—22	31.4	35.6	11	30	13	25	2	3
Fort Snelling	10.96	13.93	17.25	13.96	14.03	56	—15	42.0	29.0	17	27	26	40	3	6
Fort Dodge	14.32	20.29	27.74	19.25	20.40	42	—14	21.6	34.4	16	23	7	9	5	15
Fort Leavenworth	24.74	28.41	41.87	33.09	32.03	59	— 1	27.0	33.0	2	8	17	21	4	4
Fort Kearney	19.00	25.22	35.90	24.19	26.08	52	— 5	25.9	31.1	18	36	8	16	3	4
Fort Laramie	28.81	30.58	42.77	34.29	34.11	53	11	18.9	23.1	15	50	17	36	5	9
Fort Atkinson	28.04	35.14	45.75	35.41	36.08	60	9	23.9	27.1	23	93	21	57	4	5
Fort Arbuckle	32.87	39.58	53.12	39.77	41.33	69	10	27.7	31.3	31	40	11	11	4	4

MONTH OF JANUARY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
1	2	3	7	6	24	13	25	40	108	2.39	3.16	1.13	1.10	1.94	6	25	4	1	1.70	
0	0	3	13	14	32	21	59	16	49	5.74	6.03	6.00	5.35	5.78	16	15	3	3	1.87	
0	0	2	8	4	9	11	23	43	116	4.12	4.29	4.51	5.06	4.49	15	16	3	4	2.35	
4	10	0	0	26	82	6	17	18	66	2.12	5.22	5.16	5.41	4.48	17	14	2	7	2.16	
4	17	2	6	14	46	20	44	15	48	4.93	4.93	5.26	5.42	5.13	19	12	2	7	6.68	
9	28	0	0	23	54	0	0	52	140	3.30	4.20	4.50	3.20	3.80	16	15	2	7	4.50	
3	5	2	2	17	34	36	59	19	43	5.48	5.80	5.25	5.60	5.28	18	13	6	3	4.58	
1	1	5	12	30	41	13	18	23	29	5.93	5.32	4.45	3.87	4.89	16	15	4	4	4.14*	
3	3	20	31	6	10	2	2	51	170	4.87	4.74	5.16	5.77	5.13	18	13	4	7	3.27	
1	4	19	44	10	21	62	175	14	51	6.96	6.58	5.90	6.06	6.37	18	13	0	7	1.78	
11	16	0	0	49	64	0	0	10	26	4.80	4.93	5.29	4.87	4.97	18	13	0	10	1.17	
3	7	8	13	33	69	27	49	16	44	2.38	2.70	3.42	2.42	2.48	12	19	1	6	1.11	
2	4	9	21	11	20	15	27	20	51	2.67	2.74	2.80	4.48	3.17	13	18	4	8	1.56	
0	0	2	5	1	3	43	103	35	110	6.39	7.06	7.30	7.55	7.07	16	15	1	7	1.26	
9	30	5	14	29	90	10	40	43	166	5.00	5.22	5.32	5.22	5.19	18	13	2	2	0.80?	
3	6	2	2	5	10	15	26	24	79	4.51	4.93	4.77	4.87	4.77	15	16	5	2	1.30	
13	22	4	6	12	21	7	23	29	102	4.51	4.61	4.61	5.80	4.88	15	16	8	1	3.19	
2	3	1	1	28	52	4	9	41	88	5.41	5.61	5.58	6.58	5.81	12	19	8	1	1.54	
3	6	1	3	14	40	11	31	17	26	7.12	6.80	6.54	7.80	7.06	22	9	6	0	1.90	
0	0	1	2	3	4	21	62	33	119	5.80	5.86	6.10	6.82	6.14	23	8	6	0	....	
13	53	9	15	2	4	4	4	10	27	5.45	5.74	6.03	6.45	5.92	21	10	3	0	5.00?	
5	21	1	4	4	15	7	29	17	73	4.39	5.09	5.26	6.09	5.21	19	12	8	0	2.80	
12	24	6	11	2	5	12	64	17	88	7.12	6.93	7.03	7.03	7.03	27	4	5	0	4.29	
9	19	0	0	4	11	9	10	32	76	6.90	6.03	4.06	7.32	6.08	20	11	5	0	4.55	
4	7	4	6	7	10	33	45	5	6	3.45	5.70	6.51	6.48	5.53	21	10	6	0	1.22	
2	7	0	0	2	8	2	8	47	166	5.26	5.19	5.80	7.13	5.84	21	10	7	0	4.15	
0	0	0	0	2	4	4	8	32	76	5.42	6.42	6.35	7.03	6.30	21	10	4	0	11.18?	
1	2	0	0	2	4	17	43	10	21	4.00	4.22	3.93	5.22	4.34	13	18	5	0	3.20	
6	6	3	4	1	1	6	8	11	24	5.64	5.79	5.95	6.16	5.89	17	14	7	0	4.48	
1	1	7	10	1	4	2	4	5	13	4.40	4.20	4.50	5.80	4.72	16	15	7	0	1.72	
21	51	21	46	6	15	18	42	8	25	3.35	3.77	4.12	5.25	4.25	12	19	4	1	0.62	
0	0	4	6	5	10	13	27	10	20	2.67	4.60	5.90	6.38	4.55	16	15	4	0	0.93	
9	12	33	38	2	4	1	1	8	18	3.96	4.19	4.42	6.03	4.65	14	17	4	0	0.82	
2	2	20	33	16	37	15	21	12	27	4.48	3.93	4.32	6.38	4.78	15	16	3	0	2.68	
27	43	10	26	9	19	9	28	32	84	4.83	5.96	5.32	5.16	5.32	18	13	2	2	0.57	
1	1	21	31	6	7	28	55	17	37	8.00	7.87	7.71	2.45	6.51	17	14	2	1	0.58	
11	20	21	29	14	27	6	10	24	66	3.00	2.08	4.35	5.83	3.56	14	17	2	3	1.30	Therm. protected.
19	77	13	28	14	41	26	79	21	62	4.00	4.38	5.00	4.41	4.45	16	15	1	4	0.51	
5	13	24	62	5	16	14	43	2	4	4.60	4.14	4.60	3.29	4.16	16	15	0	11	0.92	
17	32	37	57	10	19	13	33	10	23	6.87	6.48	6.12	6.00	6.37	21	10	0	4	0.18	
10	22	3	9	17	26	9	17	25	38	8.45	7.80	7.67	8.61	8.13	23	8	0	0?	0.00	
10	26	3	6	11	22	10	16	43	130	5.45	5.77	5.38	6.25	5.71	20	11	0	4	0.20	
20	23	4	5	25	41	2	4	41	97	5.16	5.32	5.61	5.74	5.46	19	12	0	1	0.01	
3	3	7	10	31	62	17	24	21	50	5.70	5.96	6.70	7.25	6.40	22	9	0	1	0.00	
1	3	0	0	1	7	9	41	37	135	4.94	5.13	4.84	7.13	5.51	17	14	0	1	0.08	Therm. protected?
26	61	5	17	19	41	3	9	18	57	6.67	6.09	5.83	6.58	6.29	23	8	1	0	0.04	
7	8	43	47	6	7	5	8	5	5	5.41	6.03	7.74	8.54	6.93	24	7	5	0	0.49	

* Add three inches for heavy fall of rain and snow not measured.

MONTH OF JANUARY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	35.60	44.50	57.30	45.60	45.70	71	16	25.3	29.7	39	83	7	11	4	4
Fort Belknap	35.12	45.79	56.34	41.61	44.86	68	22	23.1	22.8	28	44	1	1	4	4
Phantom Hill	33.61	47.38	60.35	42.58	45.98	75	3	29.0	43.0	26	49	0	0	9	14
Fort Chadbourne	30.61	51.03	65.05	34.30	45.25	80	19	34.8	26.2	42	64	12	28	0	0
Fort Graham	39.70	51.70	65.87	49.06	51.58	80	19	28.4	32.6	25	57	21	40	10	20
Fort Croghan	40.12	47.48	60.58	47.64	48.95	80	20	31.1	28.9	40	130	7	18	11	34
Fort McKavett	37.20	43.55	55.55	42.19	44.62	69	21	14.4	23.6	27	50	0	0	0	0
Fort Mason	37.16	45.26	59.26	44.61	46.57	79	21	32.4	25.6	8	27	5	10	0	0
Fort Terrett	32.70	48.45	58.25	38.32	44.43	78	17	33.6	27.4	2	7	16	27	23	32
Fort Ewell	42.03	54.96	68.87	55.61	55.37	82	26	26.6	29.4	31	60	32	75	11	13
Fort Brown	49.38	58.00	64.67	53.35	56.35	76	30	19.7	26.3	16	39	20	51	34	79
Ringgold Barracks	47.32	54.77	68.90	58.31	57.32	83	31	25.7	26.3	46	119	9	13	8	14
Fort McIntosh	44.16	56.10	66.77	53.68	55.18	80	28	24.8	27.2	8	16	17	30	9	13
Fort Inge	35.61	49.12	64.35	44.41	48.37	78	18	29.6	30.6	2	2	5	10	51	119
Fort Duncan	36.70	47.77	65.03	49.58	49.77	80	19	30.2	30.8	41	133	6	14	32	71
Fort Clarke	39.41	49.94	62.00	45.29	49.16	78	23	28.8	26.2	27	64	1	6	5	11
Fort Fillmore	28.45	42.06	56.90	39.45	41.71	66	13	24.3	28.7	14	24	19	34	0	0
Fort Webster	28.41	41.74	54.48	37.74	40.59	68	13	27.4	27.6	51	76	1	2	2	4
Fort Conrad	26.16	38.19	52.93	36.23	38.38	63	12	24.6	26.4	13	29	23	48	9	9
Albuquerque	29.48	38.29	51.45	42.94	41.97	65	19	23.0	23.0	4	7	11	16	32	49
Santa Fé	24.32	33.12	42.90	32.32	33.16	50	15	16.8	18.2	17	32	9	16	8	24
Fort Union	27.45	35.29	46.65	25.81	33.80	59	10	25.2	23.8	27	35	12	17	2	3
Fort Massachusetts	11.13	21.37	32.09	16.61	20.30	42	— 3	21.7	23.3	51	157	4	13	4	12
Fort Defiance	20.29	26.03	44.35	27.22	29.47	55	7	25.5	22.5	0	0	0	0	0	0
Fort Yuma	48.93	58.32	71.71	58.32	59.32	80	37	20.7	22.3	33	60	4	11	8	9
San Diego	45.12	55.03	64.70	50.38	53.78	74	35	20.2	18.8	1	1	20	20	24	25
Fort Jurupa	49.00	57.45	63.16	55.54	56.29	75	35	18.7	21.3	1	6	12	21	9	18
Fort Miller	42.35	47.78	60.96	47.93	49.75	68	28	18.3	21.7	7	11	15	24	34	66
San Francisco	47.90	49.87	56.29	49.96	51.00	62	39	11.0	12.0	22	68	21	52	8	23
Benicia	44.09	46.83	56.38	47.22	48.63	61	34	12.4	14.6	5	12	0	0	52	143
Fort Reading	42.06	45.87	57.35	46.87	48.04	72	29	24.0	19.0	12	18	0	0	1	1
Fort Jones	28.61	33.67	43.67	34.35	35.07	57	19	21.9	16.1	16	24	3	4	15	19
Fort Orford	45.22	49.19	53.68	46.79	48.72	71	33	22.3	15.7	23	28	1	1	0	0
Columbia Barracks	33.93	39.00	41.32	37.00	37.81	52	26	14.2	11.8	2	2	5	5	72	194
Dalles of the Columbia	28.87	32.45	36.96	30.80	32.27	48	19	15.7	13.3	5	13	4	9	39	75
Fort Steilacoom	36.61	39.19	44.22	38.90	39.73	55	25	15.3	14.7	0	0	7	18	19	23

MONTH OF JANUARY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
44	102	4	9	3	6	5	11	16	36	2.70	3.90	4.20	5.30	4.02	17	14	4	0	1.60	
4	7	21	24	3	3	11	15	3	4	6.90	7.22	7.35	8.55	7.50	26	5	2	0	0.06	
5	9	30	59	1	1	53	72	1	1	6.19	6.67	6.93	7.41	6.80	27	4	1	1	0.52	
0	0	0	0	7	8	17	35	32	58	6.25	6.45	6.46	7.23	6.60	21	10	3	2	0.70	Mid-day temperatures
15	26	25	54	4	10	10	23	9	20	5.06	5.54	4.83	6.93	5.59	20	11	5	0	1.83	[in excess.
8	28	13	31	8	24	17	51	17	48	4.00	4.54	4.90	6.80	5.06	16	15	3	1	1.97	
9	23	70	132	5	6	1	1	11	16	5.71	6.60	7.06	7.42	6.70	23	8	1	2	1.75	
8	15	18	43	16	41	8	15	28	82	6.00	6.52	5.97	6.93	6.35	20	11	4	2	1.04	
31	50	1	2	2	2	32	51	14	25	4.83	5.61	6.80	4.29	5.38	23	8	1	2	0.80	
6	9	10	24	14	46	4	10	7	12	5.77	6.09	6.67	7.87	6.60	23	8	3	0	1.30	
8	21	0	0	4	10	14	36	21	53	7.19	7.90	7.12	7.74	7.49	27	4	0	0	0.00	
16	44	26	64	1	1	1	1	15	41	3.32	5.16	5.32	7.00	5.20	19	12	2	0	0.70	
34	77	1	2	5	6	4	7	40	78	4.52	4.81	6.32	6.97	5.65	21	10	3	0	0.30	
5	11	0	0	3	6	4	16	28	71	5.34	6.03	6.45	7.97	6.40	22	9	3	0	2.16	
19	50	15	35	0	0	0	0	9	25	6.12	6.64	8.32	8.58	7.41	28	3	5	0	0.13	
27	62	29	63	4	7	9	23	18	40	4.41	4.25	4.70	6.70	5.01	16	15	2	1	0.88	
3	15	16	28	10	34	3	3	4	7	7.61	7.41	7.51	8.09	7.65	27	4	1	1	0.04	
5	6	10	12	7	12	15	23	28	38	8.74	8.93	8.70	8.83	8.80	29	2	0	1	0.40	
4	4	11	16	7	12	25	40	16	20	6.52	7.22	7.03	7.40	7.04	28	3	0	2	0.23	
14	20	16	25	1	6	38	46	5	9	5.81	5.67	6.13	5.32	5.73	27	4	1	0	0.00	
1	3	5	8	9	20	20	46	16	36	7.77	7.74	8.35	6.48	7.58	31	0	0	0	0.00	
15	23	4	4	0	0	1	1	29	55	7.77	6.61	7.60	7.55	7.38	25	6	0	1	0.19	Temp. inaccurate.
11	33	20	59	11	32	4	12	13	39	5.96	7.06	6.45	7.12	6.89	23	8	0	2	0.22	
2	4	8	15	78	155	28	44	7	19	5.93	6.48	6.67	6.54	6.40	23	8	1	1	0.40	
1	2	6	13	3	5	17	26	46	134	6.38	6.51	7.41	8.12	7.10	25	6	1*	0	0.00	*" A few drops."
13	16	6	8	20	27	25	36	6	6	5.12	6.38	5.38	6.09	5.79	23	8	2	0	0.50	
8	16	0	0	33	64	3	8	50	179	6.87	7.12	7.06	7.70	7.19	27	4	1	0	0.25	
21	37	11	18	9	16	5	8	9	18	9.80	9.80	9.60	10.00	9.80	31	0	4	0	1.20	
8	24	4	12	7	24	25	80	28	89	2.93	2.80	4.58	5.32	3.91	14	17	13	0	3.75	
17	50	10	25	5	18	16	41	1	4	1.80	2.29	3.61	4.41	3.03	12	19	11	0	2.48	
0	0	25	39	1	2	2	2	4	5	4.83	5.29	5.58	5.58	5.32	18	13	15	0	4.66	
6	14	9	20	11	23	10	15	8	18	4.19	4.12	4.80	5.83	4.73	15	16	8	2	3.78	
66	250	4	17	6	9	0	0	10	15	3.06	2.78	2.97	4.16	3.24	12	19	16	0	11.81	
0	0	0	0	0	0	10	10	31	35	1.26	2.06	3.40	2.87	2.31	7	24	18	0	9.30	
5	10	1	2	3	5	53	91	9	16	1.48	2.12	3.22	4.12	2.73	7	24	8	5	3.02	
41	81	6	19	31	88	13	44	4	6	1.25	1.67	2.32	2.93	2.04	4	27	17	0	8.14	

MONTH OF FEBRUARY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	23.43	27.43	31.17	27.21	27.31	43	1	15.7	26.3	4	10	4	10	5	14
Fort Preble	22.25	26.52	29.10	25.50	25.84	46	3	20.2	22.8	45	140	6	21	0	0
Fort Constitution	22.03	25.32	30.78	24.03	25.54	48	8	22.5	17.5	14	25	7	17	3	13
Fort Independence	26.42	29.39	36.50	29.46	30.33	47	9	16.7	21.2	24	82	8	30	3	10
Fort Adams	29.96	31.86	36.68	34.29	33.20	48	11	14.8	22.2	24	92	9	40	18	64
Fort Trumbull	30.32	33.07	37.67	33.32	33.59	50	12	16.4	21.6	0	0	24	70	0	0
Fort Hamilton	29.71	32.21	37.50	39.25	33.17	52	15	18.8	28.2	7	12	18	26	10	10
Fort Columbus	30.00	33.00	38.00	33.00	33.50	52	14	18.5	27.5	5	5	11	22	1	1
West Point	25.78	29.32	33.10	30.60	29.70	47	9	17.3	20.7	23	100	2	6	0	0
Watervliet Arsenal	26.92	30.82	35.42	30.28	30.86	46	4	15.1	26.9	0	0	2	5	0	0
Fort Ontario	18.96	22.67	29.46	27.82	24.73	48	— 3	23.3	27.7	0	0	37	98	0	0
Fort Niagara	24.00	28.21	31.71	26.66	27.64	44	7	16.4	20.6	7	30	7	14	10	11
Alleghany Arsenal	28.85	32.60	38.14	28.75	32.08	54	12	21.9	20.1	16	25	15	24	4	7
Carlisle Barracks	28.53	32.25	36.67	31.39	32.21	51	17	18.8	15.2	20	62	0	0	54	111
Fort Mifflin	30.03	36.17	41.03	31.81	34.76	52	16	17.2	18.8	1	4	22	76	4	13
Fort McHenry	31.64	35.57	44.35	35.42	36.74	56	17	19.3	19.7	20	56	15	41	5	9
Fort Washington	32.75	38.43	47.39	38.14	39.18	69	21	29.8	18.2	7	22	2	3	2	4
Fort Monroe	41.10	43.14	50.07	41.64	44.00	66	26	22.0	18.0	5	11	13	28	4	7
Fort Moultrie	47.35	53.39	59.28	52.78	53.20	71	33	17.8	20.2	12	17	13	27	11	13
New Smyrna	51.46	66.03	66.85	57.57	60.48	78	33	17.5	27.5	12	47	13	27	7	17
Fort Pierce	59.82	63.53	65.89	62.10	62.83	78	45	15.2	17.8	46	86	3	9	0	0
Key West Barracks	68.07	72.10	74.10	70.93	71.30	79	59	7.7	12.3	32	113	13	30	21	77
Fort Myers	62.07	67.14	74.21	66.67	67.51	82	49	14.5	18.5	29	63	6	6	8	10
Fort Brooke	58.14	62.42	71.75	66.78	64.79	78	43	13.2	21.8	3	7	12	20	9	13
Fort Meade	54.28	63.21	71.60	62.21	62.82	82	40	19.2	22.8	10	10	7	8	30	43
Fort Barrancas	47.85	53.92	61.35	55.64	54.69	78	29	23.3	25.7	26	89	5	21	0	0
Mount Vernon Arsenal	46.85	52.28	62.25	54.00	53.84	75	29	21.2	24.8	25	50	11	23	7	9
New Orleans Barracks	51.14	56.07	63.14	55.68	56.51	77	38	20.5	18.5	10	35	11	25	27	66
Baton Rouge Barracks	45.53	53.96	62.50	52.50	53.62	77	27	23.4	26.6	26	57	10	16	22	38
Fort Towson	36.90	41.20	53.30	43.60	43.75	75	14	31.3	29.7	24	54	28	66	33	57
Fort Washita	35.53	39.71	51.64	42.60	42.37	71	13	28.6	29.4	25	83	6	16	14	34
Fort Smith	34.21	37.21	51.39	43.82	41.67	73	13	31.3	28.7	22	38	9	13	28	38
Fort Gibson	39.92	37.60	48.57	40.53	39.90	72	6	32.1	33.9	39	74	2	2	2	2
Fort Scott	23.46	31.27	43.63	34.85	33.30	62	5	28.7	28.3	23	59	15	26	4	5
Jefferson Barracks	28.35	30.67	41.14	34.78	33.73	70	0	36.3	33.7	4	6	5	12	0	0
St. Louis Arsenal	26.70	30.00	40.00	30.82	31.88	67	1	25.1	30.9	35	80	9	21	4	6
Newport Barracks	30.60	33.17	39.28	35.14	34.55	55	8	20.4	26.6	17	51	12	30	0	0
Fort Mackinac	13.92	18.17	23.07	15.57	17.68	38	—10	20.3	27.7	8	20	6	10	3	6
Fort Brady	8.96	22.20	24.40	17.23	18.20	47	—15	26.8	33.2	14	55	1	2	15	33
Fort Ripley	1.17	6.78	17.96	4.85	7.11	46	—35	38.9	42.1	12	31	9	19	2	3
Fort Snelling	2.17	6.00	11.03	7.57	6.69	45	—24	38.3	30.7	13	24	21	31	7	18
Fort Dodge	10.14	18.85	25.96	15.64	17.65	52	—25	34.3	42.7	18	43	5	7	9	16
Fort Leavenworth	22.92	28.68	38.89	31.64	30.53	63	— 3	32.5	33.5	6	14	9	23	0	0
Fort Kearney	16.85	25.92	38.60	23.07	24.61	60	— 8	35.4	32.6	12	36	8	24	4	7
Fort Laramie	24.04	28.14	38.21	28.46	29.71	57	— 4	27.3	33.7	30	90	7	16	5	16
Fort Atkinson	24.55	31.37	46.57	32.55	33.76	66	3	32.2	30.8	20	61	13	30	6	14
Fort Arbuckle	33.10	38.75	51.50	39.39	40.68	71	10	30.3	30.7	42	61	0	0	2	2

MONTH OF FEBRUARY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	11	22	77	5	10	2	3	58	117	2.18	2.82	3.76	1.92	2.67	10	18	9	2	7.20	
7	27	11	25	7	16	5	16	25	75	5.53	5.67	5.00	4.32	5.13	12	16	7	7	8.55	
2	6	7	27	25	56	24	61	29	101	3.46	4.39	3.71	3.14	3.67	13	15	7	5	4.82	
4	20	1	3	16	54	11	44	14	81	2.46	4.64	4.85	5.46	4.35	12	16	6	3	3.48	
13	52	12	40	1	4	8	15	24	106	4.64	4.36	3.79	4.53	4.83	12	16	8	1	5.13	
21	33	2	5	12	26	4	4	47	137	2.80	3.78	3.82	4.43	3.88	12	16	8	3	11.49?	
12	19	9	15	7	13	13	20	30	73	3.92	4.29	4.07	3.92	4.05	14	14	11	2	7.24	
13	26	2	7	44	183	12	25	21	33	5.78	6.85	7.21	5.28	6.28	16	12	8	1	4.98	
6	12	29	71	8	14	1	5	30	126	4.42	4.57	3.39	4.03	4.10	13	15	5	6	5.45	
5	11	35	106	7	14	47	156	13	44	5.14	5.10	5.12	4.50	4.79	13	15	7	3	4.08	
35	57	0	0	17	22	0	0	22	76	4.82	4.82	5.14	4.82	4.92	15	13	4	7	4.12	
6	7	14	21	19	38	25	55	19	62	1.67	2.30	2.75	2.46	2.29	8	20	5	10	1.64	
3	4	11	27	18	36	23	75	7	27	2.75	2.00	3.03	3.75	2.88	9	19	8	7	3.53	
0	0	2	7	2	5	6	15	30	115	5.07	5.32	6.10	5.67	5.54	14	14	11	2	2.73	
22	89	5	16	14	53	8	29	38	99	3.96	3.17	3.32	4.32	3.69	13	15	9	1	3.54	
20	40	5	12	8	24	13	34	16	59	3.21	3.10	3.71	3.85	3.47	12	16	9	2	3.40	
6	9	19	40	35	69	7	17	26	76	3.53	3.53	3.57	4.28	3.73	13	15	13	1	4.40	
8	15	14	28	31	68	6	16	20	54	3.67	4.32	4.32	6.28	4.65	15	13	11	0	1.90	
18	27	5	9	27	67	10	20	13	39	5.10	4.53	5.82	5.92	5.34	14	14	5	0	2.80	
13	26	12	35	9	33	11	25	15	49	6.21	6.46	6.00	6.96	6.41	20	8	6	0	0.42	
20	49	17	19	6	11	6	9	10	23	6.64	6.21	6.06	6.39	6.32	20	8	2	0	2.20	
12	44	18	62	2	10	2	12	8	44	5.50	6.07	6.18	7.53	6.32	22	6	4	0	0.35	
4	8	9	31	2	8	9	13	13	25	6.42	6.89	6.64	7.42	6.84	24	4	5	0	1.60	
26	50	3	5	16	45	6	11	37	73	4.71	4.53	3.53	6.96	4.93	16	12	5	0	1.60	
8	11	23	36	4	11	26	34	5	5	4.21	6.10	6.78	7.35	6.11	20	8	5	0	0.55	
22	92	7	42	13	59	1	4	29	125	2.96	3.96	4.10	4.35	3.84	12	16	7	0	6.80	
15	27	19	33	9	23	0	0	19	69	5.75	6.64	6.92	5.25	6.09	19	9	9	0	8.10	
20	46	7	16	8	30	13	39	20	57	2.28	2.60	2.21	3.60	2.67	7	21	6	0	4.20	
7	14	16	43	9	18	16	24	5	15	3.64	3.53	4.78	4.64	4.15	12	16	9	0	4.19	
7	19	9	24	1	4	4	13	1	2	3.30	3.60	4.70	5.80	4.35	13	15	7	2	2.90	
9	27	31	89	5	12	18	33	7	23	2.96	3.03	4.00	4.92	3.73	11	17	6	4	2.67	
4	4	3	7	5	11	10	22	10	19	4.60	3.57	5.10	6.75	5.00	15	13	7	2	1.99	
12	17	29	48	4	4	2	2	10	14	3.67	4.14	4.82	5.75	4.59	14	14	3	7	2.27	
5	7	20	43	19	55	12	28	7	10	5.42	5.14	4.67	5.54	5.19	17	11	2	4	1.30	
6	10	36	96	41	145	18	45	4	13	2.92	5.82	7.21	8.42	6.09	20	8	1	4	1.51	
5	7	20	40	5	10	18	33	12	33	7.60	7.90	7.64	2.43	6.39	17	11	3	3	2.13	Clearness inaccurate.
4	9	21	38	28	45	3	7	24	71	3.10	3.03	2.67	5.64	3.61	12	16	6	3	4.70	
6	32	13	39	8	30	28	64	32	104	3.57	3.64	3.57	5.25	4.01	10	18	6	2	2.05	
9	20	28	54	13	45	9	37	5	22	3.42	4.60	3.64	2.81	3.64	12	16	2	12	1.19	Temp. inaccurate at
5	9	27	48	9	24	16	37	25	52	5.53	5.71	5.78	6.71	5.93	19	9	0	7	0.34	[at 9 a. m.
13	28	4	9	23	42	8	15	20	30	8.64	8.00	7.85	8.46	8.24	21	7	0	3	0.01	Clearness inaccurate.
6	14	8	22	14	49	7	15	44	120	4.28	3.60	3.21	5.53	4.02	14	14	1	5	0.26	
9	20	0	0	29	72	9	16	33	83	4.82	5.75	4.57	5.32	5.11	16	12	5	2	0.30	
4	6	9	20	18	30	12	22	18	47	5.46	5.53	5.57	7.25	5.95	17	11	0	4	....	
0	0	0	0	1	5	14	77	33	128	4.50	4.86	4.36	6.00	4.68	16	12	1	5	0.57	
23	63	15	23	15	31	4	8	17	59	6.96	7.28	7.00	7.35	7.15	21	7	1	1	0.49	
10	14	32	55	11	14	2	2	3	3	6.64	6.64	7.75	8.57	7.40	22	6	5	3	1.88	

MONTH OF FEBRUARY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Worth	33.85	46.13	54.90	45.70	46.39	78	20	31.6	26.4	37	84	11	22	4	7
Fort Belknap	33.52	44.76	54.00	40.84	43.28	74	11	30.7	31.3	33	63	5	5	2	2
Phantom Hill	35.21	47.35	50.50	43.50	46.39	76	11	29.6	35.4	27	62	2	4	21	37
Fort Chadbourne	35.78	51.92	66.82	35.25	47.44	78	9	30.5	38.5	83	110	5	5	4	4
Fort Graham	42.14	51.14	62.07	50.60	51.49	80	20	28.5	31.5	18	49	10	16	12	23
Fort Croghan	40.96	43.57	57.85	48.89	47.82	80	19	32.2	28.8	28	111	16	50	8	17
Fort McKavett	37.71	43.57	54.21	42.82	44.58	75	16	30.4	28.6	20	44	2	2	1	1
Fort Mason	39.61	45.96	58.43	45.79	47.45	76	20	28.5	27.5	15	60	10	16	4	8
Fort Terrett	37.00	47.75	57.60	42.57	45.98	76	12	30.0	34.0	5	15	19	30	11	18
Fort Ewell	46.42	57.25	69.10	55.64	57.10	90	30	32.9	27.1	13	39	22	60	10	21
Fort Brown	53.39	63.00	65.64	57.32	59.84	80	34	20.1	25.9	5	10	17	39	22	50
Ringgold Barracks	53.85	58.96	69.10	60.46	60.59	87	34	26.4	26.6	34	107	13	31	7	16
Fort McIntosh	48.51	57.25	67.04	55.07	56.97	85	28	28.0	29.0	19	35	16	31	5	6
Fort Inge	43.35	53.21	64.67	48.28	52.38	80	20	27.6	32.4	6	19	21	49	44	114
Fort Duncan	43.21	50.53	65.53	52.53	52.95	90	19	37.0	34.0	26	105	19	36	28	60
Fort Clarke	42.71	50.03	61.39	48.96	50.77	80	20	29.2	30.8	35	91	0	0	10	20
Fort Fillmore	29.93	46.21	61.52	42.25	44.98	70	21	25.0	24.0	6	31	7	19	0	0
Fort Webster	25.85	44.96	55.28	36.46	40.64	62	16	21.3	24.7	22	34	6	9	0	0
Fort Conrad	24.39	40.82	56.21	37.63	39.78	66	11	26.2	28.8	22	57	29	90	5	11
Albuquerque	30.25	39.82	50.68	54.75	40.25	66	13	25.7	27.3	6	18	14	34	17	33
Santa Fē	15.03	30.10	39.78	27.11	28.00	45	7	17.0	11.0	16	29	10	25	5	10
Fort Union	20.21	32.68	46.89	24.68	31.11	58	2	26.8	29.2	27	32	18	22	1	2
Fort Massachusetts	8.00	21.71	32.71	12.96	18.84	43	— 8	24.1	26.9	38	115	4	11	6	18
Fort Defiance	17.07	25.50	43.57	26.10	28.06	56	6	27.9	22.1	1	2	0	0	0	0
Fort Yuma	46.18	59.03	71.25	57.95	58.60	78	36	19.4	22.6	20	43	4	7	8	11
San Diego	41.78	56.71	64.42	48.79	52.92	75	36	12.0	17.0	8	8	15	17	20	20
Fort Jurupa	45.53	56.03	63.53	53.71	54.70	70	38	15.3	16.7	0	0	19	35	10	19
Fort Miller	42.71	52.78	65.96	50.90	53.09	73	32	20.0	21.0	2	3	7	8	29	41
San Francisco	42.25	49.10	58.39	46.92	49.91	61	40	11.0	10.0	5	13	9	27	10	15
Benicia	42.71	47.50	60.21	49.00	49.85	68	36	18.2	13.8	0	0	2	4	14	34
Fort Reading	39.89	48.14	60.35	48.10	49.12	68	30	19.8	19.1	21	32	0	0	2	4
Fort Jones	28.03	36.17	51.07	36.64	37.98	58	20	10.0	17.9	19	22	0	0	9	16
Fort Orford	42.19	47.93	54.62	44.16	46.47	70	33	23.5	13.4	26	44	10	13	0	0
Columbia Barracks	36.10	42.43	48.10	41.89	42.13	56	19	13.87	23.1	2	3	15	22	45	102
Dalles of the Colnmbia	30.21	34.78	47.35	36.21	37.14	56	10	18.8	27.1	1	2	5	12	11	20
Fort Steilacoom	35.78	39.96	45.71	37.67	39.78	54	20	14.2	19.7	4	11	1	2	17	25

MONTH OF FEBRUARY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
9	28	17	73	8	23	8	28	17	45	2.25	2.89	3 82	5.40	3.59	12	16	5	3	3.30	
8	8	19	30	11	14	7	7	4	6	5.60	6.39	7.21	7.71	6.73	19	9	3	2	1.33	
1	1	19	42	7	27	30	53	2	3	4.89	5.07	5.53	6.42	5.48	20	8	3	3	1.30	
1	1	7	7	3	3	3	9	3	8	6.00	5.08	7.14	6.04	6.06	19	9	6	2	1.25	Temp. inaccurate.
21	40	28	62	7	15	9	18	6	15	3.32	4.10	3.59	6.17	4.79	12	16	7	2	3.61	
16	54	14	45	15	43	6	17	7	18	2.74	3.50	3.82	4.39	3.61	12	16	6	2	6.52	
4	8	54	103	5	8	13	22	17	51	3.46	3.82	5.03	5.35	4.41	12	16	7	2	2.94	
8	21	18	49	7	16	10	31	18	56	4.21	4.39	5.04	6.39	5.01	15	13	7	3	2.01	
23	38	0	0	3	4	41	77	13	23	3.03	4.42	5.57	3.57	4.15	14	14	7	3	1.54	
8	20	6	9	11	33	11	18	5	21	3.64	5.03	5.64	5.71	5.00	14	14	8	1	6.60	
19	47	6	15	4	12	11	23	19	57	3.96	4.05	3.89	4.05	4.00	15	13	4	0	1.60	
20	36	30	56	0	0	4	7	3	4	2.28	2.85	3.71	5.32	3.54	10	18	10	0	2.33	
37	65	3	3	3	5	3	4	26	70	2.68	3.25	4.04	5.00	3.74	10	18	9	0	1.99	
2	3	0	0	2	7	7	28	16	40	3.28	4.03	6.28	6.28	4.97	15	13	5	1	3.58	
25	87	4	9	0	0	2	6	8	21	4.39	6.17	7.71	6.07	6.08	20	8	4	1	1.30	
25	59	22	44	1	1	6	13	12	36	1.60	2.89	4.25	4.78	3.38	10	18	4	1	1.18	
18	76	3	7	20	78	3	18	16	75	8.75	8.78	8.82	9.06	8.85	24	4	3	0	0.10	
0	0	3	7	5	9	17	27	57	98	9.75	9.67	9.85	9.78	9.76	28?	0	2	1	0.50	
3	7	6	16	7	15	32	65	8	17	7.22	7.26	7.05	8.22	7.91	26	2	2	0	0.39	
9	10	22	30	0	0	35	66	5	12	5.11	5.79	5.64	5.64	5.79	23	5	0	0	0.00	Temp. inaccurate at
3	4	9	16	11	19	10	24	19	48	7.71	7.60	7.57	6.39	7.32	24	4	0	4	0.69	[9 p. m.
16	38	2	3	0	0	2	3	38	91	7.75	7.03	6.96	8.07	7.45	24	4	0	3	0.08	
10	30	20	61	18	57	6	18	9	29	6.85	6.28	6.39	7.92	6.86	20	8	0	7	0.76	
6	12	6	16	83	179	5	10	9	25	6.85	6.78	6.50	7.21	6.72	23	5	0	4	0.08	
3	8	6	20	4	11	18	47	46	140	6.00	6.67	6.18	8.21	6.76	21	7	0	0	0.00	
9	10	11	17	21	38	15	28	9	14	6.35	7.35	7.42	7.50	7.15	24	4	2	0	0.20	
6	12	0	0	39	95	5	12	32	119	6.46	6.67	6.59	6.68	6.60	25	3	3	0	0.67	
31	56	9	21	7	15	10	18	2	3	8.67	9.10	9.25	8.64	8.91	25	3	3	0	2.35	
10	22	11	23	4	14	27	89	32	97	5.35	5.28	6.32	6.71	5.91	18	10	6	0	1.17	
6	12	2	6	6	20	56	152	2	2	4.67	5.46	6.00	6.28	5.60	15	13	4	0	0.44	
3	3	9	15	1	1	1	3	3	4	6.28	6.14	6.60	6.32	6.33	20	8	6	0	3.18	
6	11	21	49	1	1	6	6	10	17	5.57	5.53	5.71	6.25	5.76	14	14	4	3	1.38	
41	138	3	7	0	0	1	2	23	50	2.78	3.82	3.60	3.86	3.51	11	17	15	0	6.65	
7	13	0	0	0	0	19	22	21	21	0.04	1.35	3.25	2.75	1.85	5	23	15	1	4.21	
3	9	4	10	17	19	68	123	0	0	4.39	4.42	6.03	6.28	5.28	14	14	5	0	1.09	
32	54	0	0	30	101	10	20	11	24	0.92	1.46	2.35	3.39	2.03	4	24	16	0	3.24	

MONTH OF MARCH, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	28.29	31.93	33.45	30.00	30.92	52	3	21.1	27.9	3	3	20	73	2	8
Fort Preble	28.64	34.29	38.12	32.58	33.41	56	6	22.6	27.4	22	61	15	53	5	15
Fort Constitution	28.61	33.54	38.93	60.61	32.92	57	4	24.1	28.9	12	26	4	7	7	22
Fort Independence	31.38	39.32	44.00	35.64	37.58	63	10	25.4	27.6	7	30	18	54	2	4
Fort Adams	34.64	36.84	42.45	39.42	38.34	57	14	18.7	24.3	24	95	6	24	8	30
Fort Trumbull	34.39	39.94	44.10	38.55	39.25	60	13	20.7	26.3	0	0	14	40	0	0
Fort Hamilton	35.12	39.48	45.41	39.67	39.92	63	17	23.1	22.9	9	13	20	26	2	2
Fort Columbus	34.80	39.48	45.86	38.19	39.58	64	15	24.4	24.6	4	5	9	11	3	3
West Point	32.96	39.09	44.22	38.12	38.60	62	12	23.4	26.6	19	69	4	8	1	2
Watervliet Arsenal	33.87	37.87	42.51	36.87	37.78	54	0	16.2	37.8	2	6	0	0	0	0
Fort Ontario	28.03	32.35	37.09	30.22	31.92	46	2	14.1	29.9	0	0	18	44	0	0
Fort Niagara	29.97	35.32	38.74	31.97	34.00	56	7	22.0	27.0	10	34	7	20	14	15
Alleghany Arsenal	32.94	39.16	44.97	36.94	38.50	67	16	28.5	22.5	10	17	7	7	12	17
Carlisle Barracks	32.32	38.74	46.23	37.19	38.62	64	14	25.4	24.6	18	55	3	7	10	23
Fort Mifflin	34.52	43.58	49.16	37.87	41.28	67	16	25.7	25.3	2	9	11	54	4	17
Fort McHenry	35.64	41.32	52.22	41.83	42.75	64	18	21.2	24.8	25	49	9	13	1	4
Fort Washington	36.61	45.54	54.12	42.51	44.71	75	20	30.3	24.7	7	13	2	3	1	2
Fort Monroe	44.81	46.97	53.74	48.94	48.62	71	25	22.4	23.6	1	3	14	36	0	0
Fort Moultrie	53.09	58.38	64.06	57.35	58.22	75	35	16.8	23.2	14	28	13	33	6	19
New Smyrna	59.77	71.70	72.03	63.06	66.64	88	31	21.4	35.6	16	62	21	55	20	69
Fort Pierce	70.16	73.51	77.06	73.54	73.77	86	57	12.2	16.8	20	33	12	25	6	12
Key West Barracks	71.45	74.51	76.60	73.77	74.08	82	63	7.9	11.1	36	139	10	43	31	107
Fort Myers	65.87	70.90	77.83	71.67	71.57	85	52	13.4	19.6	14	25	4	8	4	6
Fort Brooke	64.19	67.84	75.54	71.77	69.83	82	51	12.2	18.8	4	4	27	55	12	16
Fort Meade	58.90	66.45	77.70	65.33	67.09	86	39	18.9	28.1	25	34	4	4	29	33
Fort Barrancas	54.97	61.77	67.35	65.42	62.30	74	39	11.7	23.3	30	113	1	3	5	20
Mount Vernon Arsenal	53.71	60.00	70.00	61.16	61.22	80	38	18.8	23.2	27	50	13	19	5	5
New Orleans Barracks	56.37	63.24	68.98	62.22	62.70	77	44	14.3	18.7	8	17	24	68	27	62
Baton Rouge Barracks	50.16	62.09	68.93	57.22	59.60	78	36	18.4	23.6	31	47	20	30	18	29
Fort Towson	43.32	51.03	62.00	51.00	51.84	80	23	28.2	28.8	34	80	12	22	37	67
Fort Washita	43.09	49.80	61.41	51.45	51.44	81	25	29.6	26.4	29	89	6	15	17	44
Fort Smith	42.45	47.67	60.22	52.29	50.66	82	27	31.3	23.7	4	9	11	19	23	39
Fort Gibson	41.38	49.12	58.16	48.93	49.40	82	22	32.6	27.4	31	65	6	11	2	2
Fort Scott	33.64	43.35	53.38	41.61	43.00	82	7	39.0	36.0	13	25	7	10	10	13
Jefferson Barracks	37.29	41.87	52.41	45.93	44.37	80	23	35.6	21.4	1	2	18	70	37	56
St. Louis Arsenal	35.07	41.45	55.39	39.87	42.95	80	22	37.0	21.0	22	46	9	22	10	19
Newport Barracks	36.16	39.25	47.25	43.74	41.60	74	20	32.4	21.6	8	25	14	31	1	3
Fort Mackinac	22.48	28.87	33.51	23.61	27.12	45	— 3	17.9	30.1	19	50	5	23	2	4
Fort Brady	19.89	32.61	34.29	24.00	27.70	55	—13	27.3	40.7	9	35	4	10	11	20
Fort Ripley	12.64	24.06	32.64	20.51	22.46	50	—16	27.5	38.5	14	34	19	44	4	6
Fort Snelling	17.51	22.77	28.41	23.32	23.00	58	—15	35.0	38.0	10	19	29	50	9	16
Fort Dodge	19.81	28.29	37.10	27.61	28.20	65	— 6	36.8	34.2	17	59	8	10	13	39
Fort Leavenworth	31.55	37.29	50.13	40.52	39.87	81	12	41.1	28.0	2	8	8	11	2	7
Fort Kearney	25.64	37.00	49.80	33.58	36.50	82	— 1	45.5	37.5	12	40	9	23	5	7
Fort Laramie	30.03	35.45	45.65	36.55	36.92	71	9	34.1	27.9	23	89	17	47	11	37
Fort Atkinson	33.87	41.83	52.62	42.38	42.67	84	16	41.2	26.8	30	93	7	19	38	88
Fort Arbuckle	41.61	50.58	62.45	50.32	51.24	82	22	30.8	29.2	27	43	14	14	5	9

MONTH OF MARCH, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	13	10	23	12	36	7	19	56	147	2.22	2.87	2.64	2.70	2.61	9	22	9	8	4.50	
4	11	5	10	12	35	6	15	56	135	5.38	5.74	5.61	4.32	5.26	16	15	4	11	2.61	
7	18	4	10	8	16	45	118	33	92	3.32	3.74	3.93	4.35	3.83	13	18	2	7	0.29?	
8	18	3	5	24	75	13	43	26	104	2.64	4.77	4.38	4.90	4.17	13	18	4	3	1.16	
6	22	16	48	15	49	30	93	14	46	4.61	4.64	3.52	5.58	4.59	16	15	7	2	4.65	
9	29	0	0	15	29	1	2	86	176	4.35	5.06	4.68	4.87	4.74	16	15	8	2	4.86	
0	0	5	6	5	5	17	37	60	135	5.93	5.93	4.48	5.54	5.47	16	15	9	3	5.79	
9	10	2	3	17	32	29	48	46	88	4.77	5.58	4.35	3.83	4.63	16	15	3	2	2.03	
4	14	15	24	15	33	9	23	49	173	5.67	5.83	4.00	5.54	5.26	16	15	8	5	3.23	
0	0	16	55	16	38	62	222	25	98	7.22	6.74	6.77	6.35	6.77	20	11	6	5	2.72	
20	25	0	0	28	39	0	0	56	142	6.38	6.35	6.35	6.00	6.27	18	13	3	3	0.89	Clearness inaccurate.
1	1	7	9	17	27	28	50	34	76	3.83	4.00	3.77	3.18	3.69	13	18	5	6	2.54	
3	3	14	29	22	62	18	58	19	51	3.13	2.16	2.87	4.23	2.94	9	22	10	4	1.11	
10	20	2	5	2	5	60	160	16	55	6.45	6.32	6.23	5.90	6.22	16	15	6	3	0.75	
5	24	2	8	54	245	17	82	27	143	4.84	4.84	4.13	5.55	4.84	18	13	8	2	2.20	
8	19	3	3	7	14	27	61	29	89	3.83	4.67	4.67	4.38	4.39	15	16	8	2	2.70	
3	4	9	15	29	70	33	60	32	80	3.32	3.87	3.64	4.32	3.79	13	18	10	1	3.47	
11	16	8	19	45	106	5	18	26	66	4.29	4.52	4.61	6.19	4.90	14	17	6	1	1.41	
9	22	10	25	35	88	15	28	15	31	4.61	4.60	5.83	6.61	5.41	19	12	8	0	3.30	
5	16	3	8	14	35	23	62	8	19	4.90	5.70	5.67	6.70	5.74	23	8	8	0	1.73	
27	62	12	22	3	8	31	43	6	11	4.90	5.64	6.38	7.32	6.06	24	7	5	0	5.15	
18	51	14	43	6	13	2	7	3	10	5.35	5.71	5.53	6.62	5.80	19	12	8	0	12.06	
2	8	10	16	16	28	24	55	25	62	5.16	5.48	5.90	6.41	5.74	22	9	6	0	2.52	
14	24	0	0	16	36	20	31	24	51	2.00	2.38	3.54	5.96	3.97	10	21	5	0	3.35	
5	8	19	24	11	13	25	30	1	2	2.47	4.35	5.74	6.41	4.74	16	15	9	0	0.99	
14	60	6	26	33	99	7	32	31	114	2.67	4.09	2.51	5.90	3.79	13	18	10	0	4.82	
12	17	15	26	7	11	6	11	27	47	6.87	7.97	7.13	8.30	7.57	22	9	11	0	16.45?	
9	20	10	27	9	21	16	36	17	46	2.54	2.74	1.96	3.45	2.67	9	22	8	0	7.38	
12	16	17	29	2	3	10	15	9	17	4.22	4.96	5.19	6.25	5.15	16	15	9	0	4.67	
4	9	16	39	1	3	5	12	4	11	4.10	4.00	4.60	5.30	4.50	16	15	7	0	3.88	
9	24	35	115	11	34	11	30	6	22	3.29	3.58	3.38	5.25	3.87	13	18	4	1	0.75	
9	16	9	19	9	18	16	36	13	23	4.30	4.48	4.93	6.80	5.06	17	14	7	0	1.10	
7	7	34	114	1	3	2	6	5	8	4.38	3.58	4.32	6.35	4.66	17	14	5	0	1.06	
4	7	18	48	16	41	11	23	12	37	4.00	4.41	3.96	5.03	4.32	16	15	3	2	0.82	
5	11	39	74	3	9	19	35	0	0	2.29	6.74	8.25	7.61	6.22	22	9	2	2	0.85	
4	6	16	26	7	19	24	75	9	25	8.13	7.74	7.29	2.00	6.29	20	11	2	3	0.90	
13	24	16	28	46	69	1	3	38	126	4.03	4.06	3.38	5.87	4.33	14	17	8	1	1.35	Therm. protected.
8	25	11	23	4	18	21	66	43	132	2.93	3.87	3.96	4.96	3.93	11	20	2	8	2.12	
5	10	8	13	19	46	27	96	6	20	3.20	3.17	5.16	5.27	4.20	18	13	3	10	0.48?	Amount of rain in
5	8	19	30	10	18	29	66	19	48	6.26	5.77	6.22	7.41	6.41	22	9	0	5	1.06	[deficiency.
11	23	1	2	23	45	9	20	29	53	7.83	7.67	7.87	7.25	7.66	24	7	3	2	0.02?	"Slight" rains and
5	23	4	20	13	66	2	6	49	148	4.84	4.23	3.94	5.16	4.54	14	17	3	5	1.31	[snows; no mea-
7	21	1	1	26	67	12	35	58	119	4.23	4.55	4.16	4.58	4.38	13	18	2	3	0.15	[surement given
13	29	10	28	10	14	11	20	23	58	4.96	5.83	6.00	6.48	5.82	21	10	2	3	0.08	
1	2	0	0	1	2	8	32	35	155	3.29	4.07	3.23	5.35	3.98	13	18	3	5	1.78	
10	27	17	42	6	7	8	18	4	8	7.61	8.12	8.51	8.48	8.18	25	6	2	0	0.96	
19	32	22	54	17	31	4	4	10	14	6.47	7.32	8.58	8.77	7.78	26	5	4	0	0.32	

MONTH OF MARCH, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Worth	45.50	53.67	64.90	53.70	54.44	80	27	25.6	27.4	33	85	12	26	6	10
Fort Belknap	42.36	56.78	67.37	51.54	54.51	94	25	39.5	29.5	25	42	4	6	3	3
Phantom Hill	43.80	54.96	67.67	55.41	55.46	93	28	37.5	27.5	16	48	9	40	6	10
Fort Chadbourne	36.45	54.45	70.43	42.74	51.02	94	23	41.0	28.0	60	60	4	6	0	0
Fort Graham	46.64	56.93	68.58	56.48	57.16	84	31	26.8	26.2	15	40	6	15	9	19
Fort Croghan	48.61	55.87	68.03	55.74	57.06	84	30	26.9	27.1	19	70	19	63	9	24
Fort McKavett	44.54	57.80	68.71	53.03	56.02	89	27	33.0	29.0	5	15	3	3	2	3
Fort Mason	45.81	56.45	70.77	54.32	56.84	91	29	34.2	27.8	27	88	6	15	3	5
Fort Terrett	42.25	55.25	69.19	50.96	56.91	86	24	29.1	32.9	2	4	9	19	14	21
Fort Ewell	50.35	65.19	78.32	61.64	63.87	92	36	28.1	27.9	9	24	18	54	14	20
Fort Brown	63.80	73.87	76.83	65.25	69.94	90	48	20.1	21.9	2	4	8	20	46	112
Ringgold Barracks	58.12	66.09	78.19	67.32	67.43	91	38	23.6	29.4	18	54	19	45	11	30
Fort McIntosh	54.10	67.42	78.81	65.10	66.36	96	35	29.6	31.4	1	3	29	54	9	16
Fort Inge	49.77	60.00	73.45	56.80	60.60	85	30	25.0	30.0	3	9	26	54	68	197
Fort Duncan	49.74	62.23	77.58	61.87	62.85	93	34	30.2	28.8	24	79	10	34	30	75
Fort Clarke	49.48	59.64	72.03	56.41	56.89	85	35	28.0	22.0	24	84	0	0	7	13
Fort Fillmore	37.58	53.67	69.03	50.37	52.66	87	24	34.3	28.7	3	14	13	35	1	7
Fort Webster	34.09	52.32	62.24	42.84	47.89	80	17	32.1	30.9	19	25	6	11	4	7
Fort Conrad	34.20	52.80	66.20	48.93	50.53	87	20	36.5	30.5	9	15	31	87	8	12
Albuquerque	39.03	45.89	54.35	51.16	46.42	64	33	17.6	13.4	9	20	12	23	22	40
Santa Fé	27.87	40.16	48.93	34.48	37.86	71	16	33.1	21.9	13	20	12	25	9	12
Fort Union	27.61	43.38	53.93	34.22	39.78	78	15	38.2	24.8	33	61	24	36	2	3
Fort Massachusetts	19.64	34.32	45.22	25.96	31.28	64	5	32.7	26.3	27	82	2	5	8	24
Fort Defiance	25.83	37.29	51.83	35.35	37.57	69	11	31.4	26.6	3	6	0	0	0	0
Fort Yuma	54.70	69.32	80.41	66.03	67.61	92	40	24.4	27.6	16	26	6	8	3	6
San Diego	49.09	60.70	67.29	54.25	57.83	84	38	26.2	19.8	0	0	7	7	29	35
Fort Jurupa	51.93	63.84	65.03	56.67	59.29	78	40	18.7	19.3	1	6	2	2	9	15
Fort Miller	45.74	58.70	76.22	53.80	58.61	83	34	24.4	24.6	3	5	7	12	27	51
San Francisco	47.32	53.87	60.12	50.93	53.06	76	39	23.0	14.0	5	13	2	4	6	12
Benicia	45.96	52.25	62.87	50.51	52.90	75	34	22.1	18.9	0	0	0	0	12	31
Fort Reading	42.64	52.16	63.93	50.74	52.37	84	29	31.6	23.4	6	10	2	2	2	4
Fort Jones	31.48	43.19	54.83	38.54	42.01	73	22	31.0	20.0	23	30	1	1	8	13
Fort Orford	42.69	48.29	56.45	44.24	47.92	74	30	26.1	17.9	45	63	3	4	4	5
Columbia Barracks	39.00	48.00	55.00	44.33	46.58	67	21	20.4	25.6	14	27	8	14	32	70
Dalles of the Columbia	34.77	43.61	55.06	41.61	43.76	67	22	23.2	21.8	3	5	8	24	16	25
Fort Steilacoom	34.96	43.74	50.19	38.80	41.92	62	24	20.1	17.9	10	41	9	31	9	17

MONTH OF MARCH, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
22	60	24	103	6	21	5	8	15	34	3.16	3.64	4.09	6.23	4.28	15	16	7	0	3.38	
13	17	30	41	7	9	4	5	7	9	6.03	6.87	7.29	7.74	6.98	22	9	4	0	0.96	
8	32	62	209	13	62	8	22	2	9	4.93	5.74	6.06	5.80	5.63	21	10	5	0	0.54	
2	5	50	67	0	0	6	6	0	0	7.00	7.12	6.87	6.09	6.79	22	9	4	0	1.61	
27	74	29	72	10	25	12	28	4	8	3.97	5.19	5.00	6.03	5.05	17	14	5	0	4.48	
20	77	21	87	14	43	3	10	14	46	2.87	3.35	3.35	4.25	3.45	14	17	6	0	3.07	
3	8	71	194	1	4	19	35	16	47	6.67	6.61	6.00	5.22	6.15	20	11	3	0	1.52	
6	17	27	77	22	61	3	7	11	26	5.10	3.97	5.10	6.19	5.09	18	13	4	0	1.52	
40	66	0	0	2	2	38	56	15	31	4.74	5.74	6.51	3.80	5.20	24	7	3	0	1.15	
9	23	10	28	20	55	5	10	6	15	5.45	5.90	6.29	6.38	6.00	23	8	4	0	1.05	
36	83	8	24	9	20	3	7	5	11	5.12	5.25	4.96	4.83	5.03	21	10	1*	0	0.00	* "Very slight."
26	71	33	85	0	0	0	0	6	28	3.06	3.70	3.74	4.61	3.78	12	19	5	0	0.09	
61	119	1	1	3	6	0	0	20	41	3.87	4.32	4.10	5.71	4.50	17	14	3	0	0.06	
0	0	0	0	0	0	1	4	18	58	4.35	4.83	5.61	5.93	5.18	21	10	3	0	1.51	
32	112	5	15	0	0	4	9	19	71	5.64	7.00	8.41	6.93	6.99	24	7	1	0	0.01	
46	116	25	55	2	4	2	5	8	16	2.35	2.38	3.09	5.06	3.22	11	20	4	0	0.65	
9	28	18	62	12	31	12	43	26	88	9.00	9.16	9.00	9.00	9.04	31	0	1	0	0.03	
2	5	7	11	19	30	14	22	51	78	9.25	9.38	9.38	9.54	9.39	31	0	0	2*	0.00	* "Very slight."
5	8	15	42	9	38	39	86	5	17	6.20	6.18	6.13	7.61	6.53	25	6	3	0	0.38	
5	8	16	24	1	1	55	109	1	3	5.23	6.06	5.77	5.52	5.63	26	5	1	2	0.01 ?	Therm. in error at 9
3	6	10	25	4	6	21	36	19	44	5.90	6.87	7.09	6.12	6.49	26	5	3	4	0.50	[p. m., and pro-
12	26	1	2	6	15	4	6	25	69	6.25	6.51	5.80	6.61	6.29	25	6	2	5	0.77	[tected.
8	28	26	85	19	60	20	52	11	29	5.32	5.93	5.70	5.64	6.15	20	11	0	8	0.94	
1	2	17	46	66	150	29	60	8	15	6.77	6.61	6.38	6.19	6.49	24	7	2	5	1.29	
4	8	18	47	10	26	36	95	26	90	6.03	6.12	5.29	7.45	6.22	24	7	2	0	0.01	
16	19	14	20	20	58	28	50	4	4	4.00	5.90	6.80	6.90	5.90	21	10	8	0	1.52	
8	15	0	0	67	143	2	3	27	77	5.51	6.16	6.22	6.93	6.20	22	9	4	0	3.15	
34	86	14	35	7	20	16	43	2	10	7.74	8.25	8.48	8.06	8.13	26	5	5	0	5.54 ?	
7	19	12	63	5	21	31	73	53	189	4.61	4.93	5.45	5.87	5.21	16	15	7	0	3.72	
3	3	14	41	7	22	74	240	0	0	5.32	5.03	4.80	6.38	5.38	18	13	7	0	2.66	
3	8	21	47	2	2	1	4	6	6	5.54	5.96	5.58	6.83	5.98	22	9	8	0	7.11	
5	8	22	38	5	10	18	34	15	27	5.74	5.48	5.25	6.77	5.81	20	11	3	5*	3.39	
38	113	1	1	0	0	1	2	25	51	3.03	3.58	3.58	4.26	3.61	10	21	13	1*	6.45	*Hail.
9	19	5	18	6	15	15	29	10	24	2.41	2.67	3.41	3.41	2.97	9	22	7	1	2.47	
3	4	12	19	16	22	52	122	12	34	4.19	5.16	6.51	6.70	5.64	19	12	3	2	0.27	
29	54	4	17	33	117	18	62	6	16	2.09	3.61	4.12	5.12	3.73	12	19	11	3	2.62	

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* Four feet of fresh snow on adjacent mountains on the 30th.

MONTH OF APRIL, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	34.76	43.30	46.66	37.90	40.65	60	28	19.4	12.6	3	5	7	14	9	20
Fort Preble	37.60	40.96	48.60	40.90	42.02	62	26	20.0	16.0	18	43	1	2	2	8
Fort Constitution	35.80	40.33	44.56	36.00	39.17	54	26	14.8	13.2	7	15	10	42	10	34
Fort Independence	39.26	45.20	53.56	44.66	45.67	69	32	23.3	13.7	10	43	27	81	6	16
Fort Adams	41.46	45.33	49.57	45.00	45.34	56	34	10.7	11.3	36	118	11	50	10	39
Fort Trumbull	42.23	47.50	51.87	45.13	46.68	62	33	15.3	13.7	0	0	42	102	0	0
Fort Hamilton	42.20	46.47	52.03	46.20	46.73	65	34	18.3	12.7	10	15	28	37	6	10
Fort Columbus	42.76	48.10	55.26	46.40	48.13	68	34	18.9	14.1	16	19	18	22	6	7
West Point	40.40	46.66	52.50	45.76	48.83	73	31	24.2	17.8	24	68	5	15	5	15
Watervliet Arsenal	35.20	43.48	50.68	42.16	42.88	76	30	33.1	12.9	0	0	0	0	0	0
Fort Ontario	36.33	43.56	46.83	38.53	41.31	64	28	22.7	13.3	0	0	47	78	0	0
Fort Niagara	37.06	42.40	48.66	42.03	42.54	76	29	33.5	13.5	12	17	27	53	4	8
Alleghany Arsenal	43.20	51.40	57.76	49.30	50.42	75	26	24.6	24.4	17	23	28	39	3	5
Carlisle Barracks	40.90	48.87	56.73	46.20	48.18	76	32	27.8	16.2	15	39	13	29	23	62
Fort Mifflin	42.97	53.50	59.03	46.47	50.49	75	32	24.5	18.5	14	64	13	75	4	15
Fort McHenry	46.53	53.33	61.03	51.86	53.19	80	32	26.8	21.2	27	45	18	37	7	18
Fort Washington	47.63	55.80	65.36	52.36	55.29	93	35	37.7	20.3	18	32	10	17	2	3
Fort Monroe	52.07	55.90	60.83	55.73	56.13	78	45	21.9	11.1	8	17	28	77	10	21
Fort Moultrie	61.13	68.40	71.73	65.26	66.63	82	47	15.4	19.6	10	17	18	58	8	15
New Smyrna	64.10	78.86	76.90	68.73	72.15	88	54	15.8	18.2	6	25	19	71	29	61
Fort Pierce	75.96	79.93	82.90	78.30	79.27	88	67	8.7	12.3	7	13	16	35	17	36
Key West Barracks	73.20	76.60	79.30	75.46	76.14	83	67	6.9	9.1	29	80	22	66	43	156
Fort Myers	71.50	75.86	81.93	75.63	76.23	87	61	10.8	15.2	17	47	4	9	14	30
Fort Brooke	67.67	72.13	80.01	75.43	73.81	85	59	11.2	14.8	6	6	23	27	42	63
Fort Meade	61.23	72.73	80.93	69.86	71.19	87	46	15.8	15.2	17	22	16	22	37	45
Fort Barrancas	62.93	70.20	74.93	69.00	69.27	81	43	11.7	26.3	12	42	3	14	5	20
Mount Vernon Arsenal	63.93	71.10	80.46	68.36	70.96	89	50	18.0	21.0	16	29	7	11	7	7
New Orleans Barracks	62.68	72.01	78.16	68.85	70.42	84	48	13.6	22.4	2	7	11	25	28	58
Baton Rouge Barracks	58.56	71.33	78.73	65.80	68.61	84	38	15.4	30.6	16	29	6	8	13	17
Fort Towson	55.47	64.37	73.73	63.40	64.24	84	35	19.7	29.3	30	54	5	6	47	85
Fort Washita	55.90	62.53	73.50	63.83	63.94	86	39	22.1	24.9	13	40	6	18	23	57
Fort Smith	55.66	61.10	73.40	65.70	63.97	85	39	21.0	25.0	9	16	8	15	14	25
Fort Gibson	54.80	63.53	72.26	62.63	63.31	87	40	23.7	23.3	24	37	5	5	7	15
Jefferson Barracks	50.66	57.70	64.66	56.66	57.42	82	38	24.6	19.4	2	3	23	106	39	72
St. Louis Arsenal	50.27	57.00	66.00	52.83	56.53	82	38	25.5	18.5	27	60	19	34	18	42
Newport Barracks	48.90	53.93	61.90	55.37	55.00	82	34	27.0	21.0	11	47	21	61	0	0
Fort Mackinac	31.83	40.33	45.80	34.53	38.13	59	25	10.9	13.1	15	43	18	59	9	29
Fort Brady	30.37	43.27	47.97	34.23	38.96	64	21	25.0	18.0	7	20	6	16	18	32
Fort Ripley	33.17	44.07	53.17	41.00	43.85	67	18	13.2	25.8	14	39	25	80	2	3
Fort Snelling	36.63	46.13	51.80	45.30	44.97	67	14	22.0	31.0	4	7	22	38	6	18
Fort Dodge	38.70	47.77	55.67	45.33	46.87	69	24	22.1	22.9	19	48	33	74	16	89
Fort Leavenworth	46.37	54.50	63.43	55.63	54.98	77	33	22.0	22.0	1	1	14	27	1	3
Fort Kearney	40.60	48.80	59.03	46.80	48.56	76	29	27.4	19.6	13	42	11	25	19	40
Fort Laramie	41.90	47.20	56.57	48.60	48.57	71	32	22.4	16.6	18	57	26	76	21	82
Fort Atkinson	47.58	55.71	68.85	54.73	56.77	88	31	31.2	25.8	24	62	25	60	19	55
Fort Arbuckle	55.06	64.83	75.36	61.80	64.26	89	34	14.7	30.3	26	31	3	4	3	3
Fort Worth	57.77	65.47	74.63	64.97	65.71	83	37	17.3	28.7	19	51	7	15	8	15

MONTH OF APRIL, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
0	0	15	59	24	68	4	4	54	106	3.16	4.13	5.50	1.24	3.50	13	17	5	3	1.90	
1	3	14	37	23	70	17	47	41	108	5.60	5.96	6.23	4.50	5.57	18	12	12	2	3.76	
7	17	8	22	25	67	19	35	26	73	4.46	5.26	4.50	4.73	4.74	15	15	9	2	3.23	
11	31	0	0	31	83	8	25	20	75	4.66	5.23	4.96	6.10	5.24	20	10	11	1	2.77	
6	23	40	125	4	10	10	36	1	6	4.20	4.80	3.93	4.96	4.40	16	14	13	0	10.48	
6	13	4	8	20	31	14	28	33	62	3.90	4.57	4.40	5.20	4.51	14	16	14	0	11.44	
15	21	23	27	14	25	6	11	7	21	4.43	4.63	4.33	5.46	4.71	18	12	14	0	4.78	
9	12	14	18	16	25	17	22	12	17	4.76	4.60	4.83	4.66	4.71	14	16	10	1	3.32	
15	49	23	67	4	10	3	7	27	102	4.73	5.30	4.80	5.76	5.15	16	14	15	2	5.84	
0	0	32	96	2	4	75	162	10	20	5.53	5.46	5.26	5.96	5.55	17	13	10	2	3.36	
33	44	0	0	22	29	0	0	15	39	7.13	7.66	7.23	6.50	7.13	19	11	8	0?	3.04	
3	3	20	34	10	25	39	74	2	7	5.90	5.86	6.06	6.43	6.06	20	10	8	2	3.40	
3	5	10	16	16	48	10	32	15	43	3.70	4.96	4.36	4.23	4.31	14	16	13	1	4.16	
8	18	2	8	6	18	42	120	3	7	6.23	6.70	6.30	7.00	6.56	19	11	10	0	3.02	
20	83	7	24	32	149	8	48	20	97	4.00	4.03	4.33	5.53	4.47	13	17	11	0	3.98	
14	28	10	19	11	20	15	50	14	37	3.26	3.36	4.33	4.46	3.83	13	17	10	0	3.10	
10	18	12	25	31	64	9	19	23	62	3.06	3.30	4.23	4.50	3.77	13	17	12	0	3.56	
9	17	8	22	28	100	4	11	10	20	4.47	4.30	4.40	6.07	4.81	15	15	12	0	2.47	
17	38	19	63	39	119	7	18	2	6	7.40	7.10	7.00	7.43	7.23	23	7	4	0	1.06	
13	28	14	26	11	22	15	22	0	0	7.30	7.66	6.80	7.66	7.36	25	5	5	0	0.63	
28	65	40	58	0	0	8	8	0	0	7.10	7.60	7.80	8.33	7.71	28	2	3	0	2.45	
7	15	12	18	5	8	0	0	3	6	6.30	6.43	7.35	7.70	6.44	26	4	3	0	....	
21	44	12	28	9	18	30	56	4	7	7.08	7.30	6.60	7.03	7.00	26	4	4	0	2.20	
0	0	0	0	20	29	16	31	7	15	4.43	5.50	4.50	6.80	5.31	22	8	3	0	0.75	
7	7	13	16	9	13	15	17	2	2	3.10	7.56	6.43	7.80	6.22	24	6	2	0	0.03	
20	79	15	54	31	123	8	18	20	70	3.20	3.23	3.10	7.06	4.15	14	16	2	0	0.51	
18	28	37	55	10	17	8	13	12	22	9.20	9.30	8.57	8.80	8.97	22	8	6	0	6.59	Clearness inaccurate.
19	49	10	23	8	21	29	70	8	22	2.16	1.73	2.06	4.83	2.70	10	20	3	0	1.88	" "
12	16	34	51	19	43	18	30	2	5	4.83	4.66	5.70	7.76	5.74	19	11	3	0	0.57	
2	5	24	60	0	0	1	1	1	2	3.10	2.80	4.10	6.10	4.03	13	17	8	0	4.99	
18	55	38	131	5	22	12	25	2	7	3.26	3.26	3.56	6.50	4.15	12	18	4	0	1.39	
17	32	16	27	7	13	13	28	6	13	3.93	4.30	4.73	7.20	5.04	16	14	4	0	0.99	
22	48	28	69	4	7	3	3	4	4	5.63	3.96	4.20	6.26	5.01	17	13	9	0	3.52	
0	0	32	67	3	14	23	40	0	0	3.30	7.96	8.46	8.30	7.01	22	8	8	0	3.53	
3	5	15	28	9	19	15	45	4	12	7.03	7.40	7.23	1.83	5.87	20	10	6	0	3.68	
28	76	15	27	21	65	2	8	20	62	2.57	4.60	3.87	6.00	4.26	15	15	12	0	6.33?	
9	27	15	24	4	24	10	28	27	104	6.30	6.00	5.70	6.26	6.07	19	11	4	2	0.85	
3	6	20	47	14	39	24	86	2	6	6.50	6.40	6.40	6.13	6.36	21	9	3	4	0.73	
6	16	27	58	18	50	15	46	8	22	6.00	4.97	5.13	5.20	5.33	17	13	3	2	1.31	April 4. "First rain
17	35	9	23	24	69	12	28	24	54	6.97	7.90	8.00	8.77	7.91	24	6	3	1	0.73	[since Oct. 26, 1853."
9	41	1	4	11	43	6	23	21	64	3.03	3.03	1.90	4.63	3.15	12	18	12	1	3.92	
23	57	11	36	16	41	16	35	33	59	3.50	3.83	3.96	3.00	3.57	13	17	8	0	2.36	
21	64	13	32	2	4	1	1	18	42	3.46	3.76	4.02	4.93	4.04	14	16	9	0	6.10	
11	46	0	0	1	1	3	14	20	71	3.07	3.23	3.17	4.40	3.47	12	18	10	0	4.53	
23	79	6	8	10	19	5	11	4	15	8.23	8.56	8.60	8.33	8.43	29	1	4	0	3.38	
18	43	45	79	2	5	0	0	5	6	6.30	7.20	8.70	8.73	7.73	25	5	6	0	1.04	
29	67	51	184	2	10	2	6	0	0	2.53	2.67	4.07	6.00	3.82	14	16	6	0	4.18	

MONTH OF APRIL, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Belknap	55.71	70.17	80.19	63.15	67.31	92	32	24.7	35.3	13	18	5	5	3	4
Phantom Hill	57.56	68.20	81.73	68.93	69.11	90	38	20.9	31.1	23	84	6	10	9	22
Fort Chadbourne	48.30	64.57	81.77	54.06	62.18	96	34	33.8	28.2	21	29	0	0	9	8
Fort Graham	57.70	66.93	79.63	63.13	67.00	85	40	18.0	27.0	4	9	5	12	10	23
Fort Croghan	60.63	67.50	77.93	67.93	68.50	87	42	18.5	26.5	7	24	11	34	6	18
Fort McKavett	54.90	65.56	82.10	64.43	66.75	95	30	28.3	36.7	5	13	0	0	6	15
Fort Mason	60.53	69.93	79.80	67.13	69.35	92	43	22.6	26.4	15	39	4	7	3	9
Fort Terrett	56.63	68.53	80.23	64.40	67.45	95	30	27.5	37.5	0	0	3	4	12	22
Fort Ewell	65.70	75.90	88.13	72.70	75.61	96	42	20.4	33.6	4	11	5	13	26	62
Fort Brown	71.60	84.50	86.63	71.93	78.73	90	64	11.3	14.7	1	2	4	8	23	49
Ringgold Barracks	69.46	76.13	88.80	75.96	77.59	97	45	19.4	32.6	5	26	6	14	15	40
Fort McIntosh	66.70	77.67	91.90	76.70	78.24	102	46	23.8	32.2	0	0	19	44	4	8
Fort Inge	61.30	70.70	82.90	66.60	70.38	92	33	21.6	37.4	0	0	34	72	64	207
Fort Duncan	65.17	71.53	86.43	75.53	74.67	97	42	22.3	32.7	4	16	4	12	94	275
Fort Clarke	62.26	69.86	79.53	68.70	70.09	90	39	19.9	31.1	3	12	0	0	6	13
Fort Fillmore	49.67	68.96	84.70	62.73	65.54	99	33	33.5	32.5	0	0	15	56	0	0
Fort Webster	42.33	67.93	73.03	45.33	57.18	85	32	27.8	25.2	3	4	0	0	0	0
Fort Conrad	44.37	68.00	80.43	61.90	63.68	91	27	27.3	36.7	13	24	17	57	7	11
Albuquerque	55.40	61.63	65.50	54.43	59.24	72	38	12.8	21.2	3	3	2	4	22	47
Santa Fé	39.23	62.26	68.36	45.83	53.92	74	29	20.1	24.9	16	31	24	55	15	30
Fort Union	40.23	54.03	68.90	45.80	52.21	80	27	27.8	27.2	35	62	13	24	1	1
Fort Massachusetts	29.76	51.83	60.10	39.20	45.23	71	19	25.8	26.2	11	38	1	4	3	9
Fort Defiance	33.23	49.26	65.06	45.06	48.15	72	22	23.8	26.2	0	0	1	2	1	2
Fort Yuma	60.73	76.63	89.06	76.46	73.22	99	52	25.8	21.2	10	25	5	8	6	9
San Diego	53.43	66.26	73.13	57.80	62.66	86	45	23.3	17.7	0	0	11	13	29	35
Fort Jurupa	53.76	64.50	70.76	68.66	64.42	83	45	18.6	19.4	0	0	0	0	6	9
Fort Miller	54.36	66.43	80.03	56.10	64.23	95	40	30.8	24.2	2	4	7	13	35	60
San Francisco	49.90	56.40	61.56	51.86	54.93	72	43	17.1	11.9	0	0	4	10	2	3
Benicia	48.83	56.96	65.90	52.83	56.13	79	42	22.9	14.1	2	5	1	3	5	9
Fort Reading	49.20	59.26	69.00	57.63	58.77	83	39	24.2	19.8	8	14	1	1	2	2
Fort Jones	36.43	53.40	61.13	45.60	49.14	83	27	33.9	22.1	12	21	1	1	2	2
Fort Orford	46.15	52.68	58.45	48.91	51.55	68	40	16.4	11.6	19	28	2	3	0	0
Columbia Barracks	45.70	57.30	66.43	47.20	54.16	74	33	19.8	21.2	4	8	1	2	20	26
Dalles of the Columbia	42.36	55.43	64.40	51.46	53.41	78	33	24.6	20.4	2	3	2	2	10	18
Fort Steilacoom	42.06	52.13	58.53	42.26	48.74	67	34	18.3	14.7	3	9	3	8	16	35

MONTH OF APRIL, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	14	38	59	4	5	7	7	2	2	6.40	6.03	7.30	8.43	7.04	22	8	4	0	2.03	
4	8	53	224	15	58	4	10	1	1	4.43	6.03	6.80	7.33	6.15	23	7	2	0	0.45	
4	4	75	95	4	6	7	10	0	0	5.70	6.73	6.90	6.80	6.53	23	7	5	0	0.80	
34	66	33	80	21	57	7	19	2	4	3.70	4.30	4.60	7.20	4.95	19	11	4	0	2.00	
44	144	27	95	16	45	2	2	1	3	2.53	3.56	3.33	4.86	3.57	11	19	4	0	2.28	
8	20	79	167	2	2	5	9	16	19	6.06	6.36	6.53	6.83	6.45	22	8	5	0	2.00	
9	22	51	133	23	67	1	1	3	8	4.00	4.33	4.97	6.60	4.93	17	13	5	0	2.89	
82	127	0	0	0	0	14	24	5	13	3.50	4.96	6.43	4.10	4.75	21	9	5	0	0.86	
47	144	30	97	6	22	0	0	0	0	5.30	6.33	6.73	6.63	6.25	20	10	7	0	2.25	
28	67	34	94	24	53	6	15	0	0	5.16	4.03	5.76	5.46	5.10	16	14	2	0	2.20	
38	107	51	135	0	0	0	0	0	0	2.76	3.80	4.03	5.70	4.07	13	17	7	0	3.79	
93	200	0	0	0	0	0	0	0	0	3.30	4.87	5.90	5.53	4.90	20	10	5	0	4.32	
6	13	0	0	0	0	0	0	8	19	2.50	3.83	6.40	5.40	4.53	14	16	4	0	2.42	
17	71	0	0	0	0	0	0	0	0	4.26	4.20	7.83	6.83	5.78	18	12	3	0	2.10	
89	215	15	41	0	0	3	3	1	2	2.56	2.63	3.53	5.56	3.57	10	20	5	0	2.50	
3	7	7	19	41	148	6	26	5	25	9.33	9.40	9.23	9.36	9.33	30	0	1	0	0.01	
0	0	1	2	13	19	51	87	51	82	9.56	9.87	9.40	9.70	9.63	30	0	0	0	0.00	
4	16	13	33	21	79	33	76	9	17	8.20	8.10	7.20	8.96	8.12	28	2	1*	0	0.00	*Very slight.
8	18	25	33	0	0	47	91	0	0	5.67	6.10	5.57	5.67	5.75	27	3	1*	0	0.00	" "
5	26	4	7	1	1	16	33	10	27	7.30	8.33	8.36	6.53	7.63	27	3	0	0	0.00	
6	17	5	13	11	30	14	47	24	69	7.90	7.03	7.03	7.76	7.43	28	2	3	0	0.32	
8	23	26	94	41	79	24	61	18	51	7.73	7.00	5.26	6.50	6.62	25	5	4	0	0.39	
3	7	8	21	71	216	27	64	3	8	9.00	7.90	7.20	7.50	7.85	28	2	1	0	0.10	
4	9	14	33	16	35	31	90	27	81	6.66	7.23	7.36	8.13	7.35	25	5	0	0	0.00	
14	16	19	28	23	47	23	55	5	5	3.30	6.83	8.16	6.26	6.14	21	9	3	0	0.25	
4	7	0	0	86	168	10	18	7	22	5.20	6.03	7.20	7.30	6.43	24	6	3	0	0.33	
26	59	13	31	7	21	13	36	2	10	8.46	8.23	8.26	8.43	8.35	25	5	7	0	2.25	
6	16	12	42	7	23	27	96	47	182	5.16	5.13	6.60	6.23	5.78	18	12	9	0	5.27	
2	4	6	14	2	11	88	316	1	2	5.00	5.50	5.90	6.63	5.76	19	11	8	0	3.12	
5	7	18	31	3	3	0	0	3	4	5.80	5.70	5.53	6.36	5.85	18	12	9	0	4.57	
2	2	26	53	10	15	28	70	5	20	5.06	5.56	4.70	6.96	5.57	19	11	5	3	1.02	
69	208	2	7	0	0	0	0	22	53	2.03	2.60	2.86	3.90	2.85	6	24	19	0	6.11	
9	23	36	65	2	4	20	35	17	44	0.26	1.83	2.60	1.80	1.62	3	27	8	0	1.72	
1	1	13	23	25	52	44	110	16	48	5.63	6.10	6.03	6.53	6.07	21	9	9	0	1.29	
20	42	2	5	24	87	25	65	25	68	1.66	2.66	3.43	5.33	3.27	21	9	16	0	1.57	

MONTH OF MAY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	43.52	50.65	53.97	45.58	48.83	71	38	22.2	10.8	1	2	6	13	21	42
Fort Preble	49.65	55.77	58.90	50.32	53.66	76	36	22.3	17.7	46	108	11	26	3	8
Fort Constitution	49.16	54.54	60.12	47.54	52.84	86	36	33.2	16.8	16	33	1	1	22	63
Fort Independence	50.61	56.68	66.16	55.13	57.15	86	38	28.9	19.1	7	16	23	82	4	8
Fort Adams	51.48	58.00	60.96	55.00	56.36	75	40	18.6	16.4	28	94	4	15	7	21
Fort Trumbull	52.97	60.06	63.74	55.26	58.01	76	39	18.0	19.0	2	3	24	69	3	3
Fort Hamilton	53.48	59.00	64.54	57.48	58.63	75	38	16.4	20.6	8	15	11	11	17	29
Fort Columbus	52.83	61.61	68.87	57.70	60.25	86	43	25.8	17.2	11	11	25	28	2	5
West Point	53.00	61.80	66.35	58.35	59.88	82	44	22.1	15.9	48	170	2	4	1	2
Watervliet Arsenal	47.67	56.58	65.80	51.09	55.29	78	30	22.7	25.2	9	24	4	8	4	9
Fort Ontario	40.90	51.22	59.58	44.24	49.00	80	30	31.0	19.0	0	0	25	45	0	0
Fort Niagara	46.96	55.00	59.25	50.32	55.88	83	36	27.1	19.9	6	11	14	29	14	31
Alleghany Arsenal	52.48	66.22	69.35	59.54	60.90	83	34	22.1	26.9	13	20	10	19	7	14
Carlisle Barracks	50.84	60.90	71.23	59.19	60.54	91	36	30.5	24.5	4	15	8	20	23	46
Fort Mifflin	53.45	67.22	70.03	57.67	62.09	88	35	25.9	27.1	3	8	12	45	4	20
Fort McHenry	57.25	63.29	72.67	64.12	64.33	88	46	23.7	18.3	6	10	14	36	1	3
Fort Washington	56.16	67.80	77.61	61.83	65.85	97	46	31.1	19.9	9	30	0	0	2	4
Fort Monroe	59.94	64.23	70.44	65.16	64.94	82	49	17.1	15.9	2	5	19	52	9	18
Fort Moultrie	68.32	75.96	76.77	72.54	74.40	84	63	9.6	11.4	6	16	23	80	10	26
New Smyrna	68.64	83.73	81.45	73.22	76.76	91	64	14.2	12.8	5	24	30	69	34	74
Fort Pierce	78.45	82.45	85.64	80.74	81.82	92	72	10.2	9.8	14	24	7	20	34	76
Key West Barracks	76.16	80.32	82.77	79.03	79.57	86	73	6.4	6.6	36	99	21	75	27	90
Fort Myers	75.74	79.41	87.12	80.77	80.76	91	68	10.2	12.8	20	44	10	23	20	44
Fort Brooke	71.97	78.16	84.97	77.42	78.13	89	69	10.9	9.1	2	2	18	28	38	63
Fort Meade	65.90	77.61	86.12	75.00	76.16	95	58	18.8	18.2	17	21	17	19	38	51
Fort Barrancas	67.35	76.22	80.70	73.51	74.45	89	57	14.5	17.5	18	37	5	18	4	18
Mount Vernon Arsenal	65.45	75.06	84.23	72.48	74.31	93	59	18.7	15.3	14	23	20	32	7	10
New Orleans Barracks	66.48	77.41	80.90	72.51	74.33	90	58	15.7	16.3	8	20	6	9	37	85
Baton Rouge Barracks	61.77	75.06	80.38	69.38	71.65	88	52	16.3	19.7	10	14	5	7	28	43
Fort Towson	60.12	67.45	74.90	66.54	67.25	87	46	19.7	21.3	18	40	18	28	39	68
Fort Washita	59.58	65.58	72.25	64.41	65.46	85	45	19.5	20.5	20	72	2	7	28	96
Fort Smith	59.54	63.54	71.22	65.41	64.93	82	48	17.1	16.9	6	9	8	14	24	43
Fort Gibson	59.16	65.71	71.29	63.00	64.79	86	46	21.2	19.8	20	22	7	14	5	5
Jefferson Barracks	56.41	63.93	73.00	64.48	64.46	87	43	22.5	21.5	24	63	0	0	11	24
St. Louis Arsenal	59.00	64.52	75.00	59.78	64.58	88	47	23.4	17.6	9	29	10	23	21	47
Newport Barracks	55.67	62.90	70.38	62.77	63.93	84	44	20.1	19.9	9	30	20	63	0	0
Fort Mackinac	41.77	48.58	53.58	43.12	46.76	69	34	22.2	12.8	9	23	4	13	13	48
Fort Brady	41.74	54.26	57.90	41.97	48.97	85	27	36.0	22.0	9	41	8	31	24	62
Fort Ripley	41.64	55.30	62.48	48.67	52.02	84	29	32.0	23.0	7	19	41	131	1	2
Fort Snelling	45.83	58.19	62.06	53.80	54.97	84	33	29.0	22.0	8	17	13	36	3	4
Fort Dodge	48.68	59.00	67.68	54.74	57.53	85	32	27.5	25.5	17	35	24	54	13	40
Fort Leavenworth	50.80	59.74	69.19	60.16	59.97	84	38	24.0	22.0	5	9	9	15	5	12
Fort Kearney	45.90	54.70	61.74	52.00	53.59	84	30	30.4	23.6	6	9	1	1	14	26
Fort Laramie	45.80	51.51	57.83	51.35	51.62	69	33	17.4	18.6	22	68	16	44	18	69
Fort Atkinson	57.40	60.61	65.58	62.43	61.51	78	49	16.5	12.5	15	41	16	43	19	53
Fort Arbuckle	59.16	66.93	75.06	63.83	66.25	92	41	25.7	25.3	29	31	4	4	4	5
Fort Worth	61.06	67.87	74.77	66.19	67.47	84	48	16.5	19.5	22	53	6	15	11	22

MONTH OF MAY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	3	17	46	17	36	1	3	61	129	1.29	3.32	3.74	0.73	2.27	7	24	14	0	3.30	
12	33	17	44	8	20	14	26	10	23	5.45	5.96	5.74	4.38	5.38	18	13	16	0	7.08	
9	16	6	22	19	44	28	63	15	56	2.80	3.29	3.70	3.38	3.39	11	20	13	0	6.96	
15	29	1	1	20	64	16	53	7	32	4.35	5.19	5.19	5.31	5.01	18	13	10	0	6.31	
5	14	61	171	1	2	12	28	3	14	5.80	6.16	4.96	6.42	5.84	17	14	7	0	7.56	
22	41	0	0	25	35	5	5	40	63	3.87	4.77	4.42	5.55	4.65	14	17	10	0	10.75?	
15	24	27	38	15	28	19	29	12	32	6.16	6.22	6.06	5.73	6.04	20	11	10	0	6.02	
13	20	16	29	32	42	13	22	9	15	6.90	7.41	6.61	6.80	6.93	23	8	11	0	5.80	
16	47	41	125	3	7	6	17	16	61	6.06	6.00	5.61	5.54	5.80	21	10	15	0	7.99	
8	16	30	79	10	22	37	92	17	38	5.51	6.32	5.70	4.36	5.47	23	8	16	0	5.84	
34	52	0	0	57	94	0	0	2	4	6.83	7.22	7.61	5.87	6.88	24	7	11	0	2.01	
6	9	30	63	12	26	34	66	7	12	6.38	5.70	5.90	4.87	5.71	21	10	15	0	3.70	
3	5	13	35	30	77	16	54	4	17	3.96	4.83	4.64	3.90	4.33	15	16	14	0	3.27	
14	34	7	14	7	14	50	115	10	38	7.45	7.39	6.70	7.29	7.21	24	7	12	0	3.69	
15	59	12	48	42	77	9	24	25	70	5.29	5.70	5.38	6.38	5.69	21	10	11	0	5.70	
7	18	14	29	23	51	29	52	12	40	5.87	6.00	5.54	5.45	5.72	23	8	10	0	4.30	
16	34	26	56	27	59	13	19	24	56	4.19	5.12	5.19	5.45	4.99	18	13	16	0	6.23	
14	30	9	20	43	116	6	13	14	37	5.97	5.68	6.06	7.42	6.28	23	8	7	0	2.08	
36	97	14	40	21	51	10	19	7	16	6.00	6.12	7.06	8.38	6.89	25	6	6	0	2.53	
20	71	0	0	15	24	4	4	1	1	6.03	7.09	5.96	7.35	6.61	26	5	7	0	1.14	
25	52	28	32	0	0	14	16	0	0	6.64	7.16	7.32	7.96	7.27	28	3	2	0	4.55?	
10	16	8	18	0	0	3	4	7	22	5.29	5.48	5.97	6.87	5.90	23	8	5	0	0.94	
9	24	4	11	15	37	30	86	10	22	7.76	7.32	6.64	7.70	7.36	28	3	3	0	1.79	
5	5	13	15	13	23	5	10	30	47	7.13	6.19	5.64	7.71	6.67	27	4	1	0	0.30	
8	16	8	8	10	11	19	21	0	0	2.87	6.25	6.19	7.54	5.71	22	9	3	0	0.15	
17	77	2	11	27	119	2	9	41	73	1.71	2.93	2.54	7.26	3.61	16	15	3	0	4.00	Clearness inaccurate.
20	39	12	14	12	19	7	19	23	36	7.58	8.03	7.00	8.13	7.69	28	3	3	0	5.34	
25	54	10	24	15	35	21	42	2	4	4.48	4.03	2.61	6.29	4.35	18	13	4	0	2.80	
13	22	28	41	13	18	19	21	6	10	6.29	5.41	5.22	7.58	6.13	23	8	9	0	4.55	
11	23	14	30	2	3	3	4	4	7	3.22	3.06	3.70	3.09	3.27	14	17	15	0	9.09	
17	58	37	127	8	30	4	10	4	12	1.90	2.19	2.32	3.41	2.46	6	25	13	0	7.30	
18	29	13	24	4	10	14	26	8	18	2.93	2.96	3.35	6.74	4.00	12	19	12	0	5.01	
17	23	31	38	4	4	0	0	5	5	3.09	3.06	3.13	5.45	3.68	12	19	16	0	6.65	
0	0	47	103	4	22	36	61	0	0	5.16	8.93	9.70	9.48	8.32	29	2?	6	0	3.52	
8	12	16	27	20	61	22	43	7	13	7.39	7.23	6.58	1.87	5.77	23	8	4	0	2.85	
12	22	24	36	34	97	7	16	14	45	6.19	5.29	5.29	6.45	5.81	21	10	12	0	2.01	
26	107	6	13	3	15	27	66	26	100	5.36	4.19	4.26	4.00	4.45	15	16	7	2	3.55	
7	22	23	57	21	63	6	16	8	33	5.10	5.48	5.74	4.68	5.28	18	13	8	4	0.74?	Temp. inaccurate.
18	64	4	7	19	44	7	23	17	45	4.80	4.87	4.33	4.90	4.73	17	14	11	0	1.45	
16	39	14	36	33	63	5	7	25	43	8.39	8.74	8.97	9.03	8.78	22	9	9	0	4.08	Scale of clearness inaccurate.
17	35	1	4	7	15	12	28	29	64	3.52	3.25	3.08	6.39	4.06	14	17	12	0	4.84	
19	37	7	15	25	48	10	22	28	41	3.41	4.29	4.00	2.96	3.67	13	18	7	0	3.39	
15	45	24	52	6	18	4	12	18	39	3.87	3.90	4.74	5.35	4.47	14	17	12	0	8.46	
2	5	2	7	0	0	2	10	19	68	3.93	3.90	3.03	3.35	3.55	12	19	14	0	12.19	
17	53	10	22	12	37	2	8	12	37	7.61	7.70	8.09	7.09	7.62	26	5	9	0	9.34	
6	6	59	81	6	8	1	1	1	1	5.03	6.06	7.29	5.93	6.08	20	11	16	0	5.31	
43	140	23	86	1	5	4	8	9	24	2.33	2.39	2.90	4.63	3.06	11	20	12	0	5.94	

MONTH OF MAY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Belknap	58.95	70.60	79.54	64.54	68.41	92	42	23.6	26.4	17	23	6	6	3	3
Phantom Hill	60.96	68.67	78.45	68.41	69.12	90	44	20.9	25.1	18	56	7	22	19	48
Fort Chadbourne	55.58	62.80	77.57	54.45	62.60	92	36	29.4	26.6	69	91	0	0	7	9
Fort Graham	64.61	75.29	81.25	66.93	72.02	90	54	18.0	18.0	11	27	16	34	7	16
Fort Croghan	64.64	70.51	79.83	70.61	71.40	88	49	16.6	22.4	11	34	21	68	9	23
Fort McKavett	58.12	68.96	82.03	65.22	68.58	94	39	25.4	29.6	17	32	9	14	3	5
Fort Mason	63.97	71.45	80.20	69.58	71.30	91	44	19.7	27.3	10	26	4	10	10	20
Fort Terrett	62.00	69.80	79.45	67.74	69.80	93	38	23.2	31.8	0	0	16	27	26	35
Fort Ewell	71.22	80.67	87.00	78.62	79.38	100	58	20.6	21.4	8	18	6	11	1	3
Fort Brown	72.96	83.38	84.74	74.80	78.97	89	58	10.0	21.0	1	3	4	11	6	14
Ringgold Barracks	73.80	84.19	90.32	81.96	82.57	100	60	17.4	22.6	6	14	0	0	4	6
Fort McIntosh	71.71	81.54	93.61	80.06	81.73	108	57	26.3	24.7	1	2	9	18	5	9
Fort Inge	66.51	76.16	86.06	71.77	75.12	95	48	19.9	27.1	8	19	4	5	64	176
Fort Duncan	71.45	80.03	89.12	78.83	79.86	98	55	18.1	24.9	7	29	1	3	80	183
Fort Clarke	67.80	72.64	82.90	72.06	73.85	91	52	17.2	21.8	3	8	0	0	3	5
Fort Fillmore	58.35	73.80	89.36	68.48	72.50	98	41	25.5	31.5	7	23	3	15	0	0
Fort Webster	47.09	71.35	77.10	51.45	61.75	86	32	24.3	29.7	5	9	3	6	3	4
Fort Conrad	49.58	69.45	83.12	64.87	66.76	93	31	26.2	35.8	14	20	30	111	5	8
Albuquerque	62.65	66.32	67.71	63.71	65.10	76	57?	10.9	8.1	0	0	4	18	35	99
Santa Fé	40.46	66.93	72.43	52.56	60.34	78	37	17.7	23.3	20	43	11	31	6	9
Fort Union	42.19	62.54	74.51	47.51	56.69	85	32	28.3	24.7	22	33	13	31	8	18
Fort Massachusetts	32.12	56.00	62.67	40.12	47.73	76	17	28.3	30.7	28	97	3	10	0	0
Fort Defiance	35.31	54.60	67.84	48.77	51.63	89	20	37.4	31.6	8	12	2	4	4	6
Fort Yuma	64.03	79.25	90.22	77.12	77.66	98	52	20.3	25.7	19	31	3	4	5	5
San Diego	56.54	65.74	71.48	60.00	63.44	78	45	14.5	18.5	1	1	3	3	22	25
Fort Jurupa	55.90	65.00	72.64	60.70	63.56	83	45	19.4	18.6	0	0	1	1	3	4
Fort Miller	57.03	72.41	88.83	62.38	70.16	102	50	31.8	20.2	2	3	7	11	30	57
San Francisco	51.90	58.12	62.74	52.77	56.38	74	46	17.6	10.4	0	0	3	4	0	0
Benicia	53.12	61.48	71.51	56.38	60.62	82	46	21.4	14.6	1	1	0	0	0	0
Fort Reading	55.64	66.83	76.45	64.93	65.96	92	46	26.0	20.0	22	38	0	0	3	3
Fort Jones	41.93	61.29	67.25	53.03	55.87	82	25	26.1	30.9	12	20	0	0	6	14
Fort Orford	50.35	59.06	65.98	52.84	57.06	80	42	22.9	15.1	32	69	7	14	0	0
Columbia Barracks	52.03	60.84	71.42	55.87	60.04	88	46	28.0	14.0	8	19	2	12	28	62
Dalles of the Columbia	49.67	63.87	76.00	59.00	62.14	94?	36	31.9	26.1	3	6	2	2	14	23
Fort Steilacoom	47.35	60.09	69.19	53.87	57.62	84	35	26.4	22.6	0	0	0	0	0	0

MONTH OF MAY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
15	18	31	45	4	5	6	8	0	0	3.83	5.54	5.61	5.06	5.01	17	14	11	0	6.19	
5	11	60	233	3	10	11	25	0	0	3.22	4.48	5.80	4.80	4.57	16	15	6	0	2.84	
0	0	26	35	0	0	15	20	4	6	3.00	3.51	5.35	4.82	4.17	13	18	10	0	6.48	
28	70	35	84	14	32	4	9	4	10	3.22	3.12	2.51	5.55	3.60	13	18	7	0	3.35	
35	126	27	79	8	34	5	13	0	0	2.45	2.67	4.12	4.35	3.40	10	21	11	0	3.78	
24	37	39	91	19	31	4	6	7	9	6.06	6.87	7.03	5.71	6.42	22	9	7	0	2.25	
8	20	64	225	5	15	3	8	4	15	3.97	3.81	5.45	5.81	4.76	15	16	6	0	1.21	
66	128	0	0	1	3	5	6	9	15	3.12	4.12	6.06	3.32	4.16	17	14	8	0	2.80	
55	132	18	51	4	15	0	0	2	4	4.00	5.19	5.25	5.63	5.02	18	13	6	0	3.35	
38	109	36	105	23	63	1	3	4	11	4.45	4.12	4.83	4.64	4.51	19	12	2	0	0.10	
47	118	58	118	0	0	0	0	0	0	2.96	3.61	3.54	5.12	3.81	15	16	5	0	3.91	
100	214	0	0	0	0	0	0	4	12	3.84	4.64	5.26	5.39	4.78	17	14	3	0	1.57	
35	85	2	2	0	0	0	0	3	6	2.54	4.35	6.41	5.87	4.79	17	14	7	0	3.28	
27	100	1	4	0	0	0	0	2	9	5.45	5.35	8.03	7.35	6.54	23	8	6	0	0.75	
77	179	33	83	0	0	4	7	3	6	2.29	2.67	4.54	4.19	3.42	9	22	6	0	1.16	
19	66	8	25	30	113	15	64	7	21	9.06	9.03	8.90	9.32	9.08	29	2	1	0	0.05	
1	1	0	0	8	10	50	71	54	87	9.70	9.74	9.45	9.77	9.66	31	0	1	0	1.05	
3	6	22	55	22	93	27	64	1	2	7.87	7.70	7.45	8.54	7.89	25	6	1	0	0.35	
3	4	21	41	0	0	43	121	1	1	5.19	5.96	5.87	5.45	5.62	28	3	1	0	0.04	Therm. protected. Inaccurate.
2	7	3	5	4	11	21	44	26	66	7.16	7.50	7.56	6.80	7.25	27	4	3	0	0.98	
7	17	18	41	20	75	22	68	13	36	6.38	6.39	5.90	6.58	6.31	24	7	3	2	0.91	
5	15	24	78	25	77	13	43	21	85	5.87	6.35	4.37	6.45	5.76	23	8	6	3	1.49	
2	5	3	8	18	47	43	91	27	54	8.29	8.81	7.81	8.20	8.39	29	2	5	2	1.44	
5	10	24	79	4	9	26	69	32	88	8.03	7.90	7.83	7.64	7.85	28	3	0	0	0.00	
23	30	28	45	29	63	14	21	4	5	2.77	4.38	6.51	5.16	4.70	15	16	3	0	2.10	
7	8	2	5	92	99	14	21	1	4	4.64	5.38	6.32	6.32	5.67	20	11	5	0	1.14	
37	68	8	17	5	11	18	40	4	12	8.54	8.87	8.87	8.41	8.67	28	3	6	0	4.79	
3	4	6	23	10	32	29	92	74	301	3.70	4.35	5.77	5.80	4.91	16	15	6	0	0.42	
0	0	3	9	11	42	97	319	0	0	4.67	5.41	5.80	5.80	5.42	19	12	3	0	0.36	
1	1	35	54	6	8	1	1	3	6	5.48	6.03	6.09	5.83	5.86	22	9	4	0	0.73	
3	12	22	40	0	0	20	38	4	7	5.54	6.00	3.83	5.87	5.31	20	11	8	0	1.17	
37	114	3	7	0	0	1	1	38	103	3.13	4.00	4.00	5.16	4.07	14	17	8	0	1.89	
3	10	1	4	2	4	62	123	8	19	2.61	2.93	4.12	3.93	3.40	12	19	6	0	2.33	
9	13	14	18	36	87	39	129	9	32	7.32	7.74	7.93	7.45	7.61	26	5	4	0	0.62	
16	37	37	104	34	77	23	56	0	0	5.00	6.00	6.51	6.54	6.01	20	11	7	0	2.08	

MONTH OF JUNE, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Sullivan	50.13	58.26	62.43	53.66	56.12	75	43	18.9	13.1	7	10	7	12	16	25
Fort Preble	59.80	63.53	69.93	59.70	63.24	82	52	18.8	11.2	15	32	2	6	5	12
Fort Constitution	60.90	66.96	72.86	57.53	64.56	90	50	25.4	14.6	4	7	2	5	10	23
Fort Independence	60.36	67.70	77.33	64.90	67.57	95	49	27.4	18.6	2	5	15	44	6	14
Fort Adams	61.43	69.77	73.37	65.33	67.48	84	52	16.5	15.5	15	59	4	11	5	12
Fort Trumbull	61.73	71.00	74.70	65.50	68.23	89	52	20.8	16.2	1	2	24	45	0	0
Fort Hamilton	63.83	69.33	75.26	67.53	69.00	87	46	18.0	23.0	19	21	11	12	2	2
Fort Columbus	63.80	71.23	81.66	68.10	71.20	98	51	26.8	20.2	6	7	14	14	0	0
West Point	61.93	70.73	75.76	68.16	69.14	93	48	23.9	21.1	28	96	1	3	3	7
Watervliet Arsenal	61.40	72.97	77.00	66.83	69.55	88	46	18.4	23.6	12	28	0	0	0	0
Fort Ontario	56.66	68.93	77.96	62.20	66.44	90	44	23.6	22.4	0	0	24	28	0	0
Fort Niagara	61.76	72.50	77.00	65.43	69.17	93	42	23.8	27.2	2	4	22	38	9	13
Alleghany Arsenal	62.76	75.43	84.00	72.70	73.72	95	48	21.3	25.7	15	25	7	11	1	1
Carlisle Barracks	61.47	74.93	84.50	71.00	73.00	98	42	25.0	31.0	1	3	11	22	22	53
Fort Mifflin	62.73	81.10	83.93	67.06	73.70	97	45	23.3	28.7	2	6	23	86	15	31
Fort McHenry	68.20	73.03	82.50	74.40	74.53	91	58	16.5	16.5	11	23	7	16	2	3
Fort Washington	65.73	79.46	89.30	72.06	76.64	105	50	28.4	16.6	4	10	5	9	9	15
Fort Monroe	69.37	73.80	80.63	74.16	74.49	95	60	20.5	14.5	2	6	40	91	7	17
Fort Moultrie	74.10	82.73	82.80	77.93	79.39	91	66	11.6	13.4	9	15	16	46	25	55
New Smyrna	72.36	84.10	82.34	77.50	79.07	95	62	15.9	17.1	0	0	14	31	42	116
Fort Pierce	77.96	81.13	85.26	79.76	81.03	90	70	9.0	11.0	4	5	2	3	24	83
Key West Barracks	78.00	81.23	83.00	79.67	80.48	86	74	5.5	6.5	11	28	27	81	45	160
Fort Myers	77.06	80.93	83.66	81.00	80.66	90	74	9.3	6.6	4	6	14	35	16	27
Fort Brooke	75.18	80.36	83.22	76.39	78.79	90	72	11.2	6.8	1	1	5	9	14	18
Fort Meade	70.00	77.10	81.06	74.43	75.65	90	65	14.4	10.6	10	12	35	52	32	45
Fort Barrancas	74.20	81.77	83.73	78.00	79.42	88	67	8.6	12.4	11	23	13	42	2	9
Mount Vernon Arsenal	71.37	82.57	87.50	78.00	79.86	95	67	15.1	12.9	5	8	29	43	12	20
East Pascagoula	72.68	83.54	86.88	77.82	80.23	93	68	12.8	12.2	1	2	1	2	40	78
Baton Rouge Barracks	68.66	82.13	86.90	75.70	78.35	91	64	12.6	14.4	9	11	7	8	25	33
Fort Towson	67.80	79.60	88.46	76.23	78.02	95	58	17.0	20.0	8	11	32	37	16	25
Fort Washita	68.90	78.70	84.73	75.26	76.90	94	58	17.1	18.9	10	34	1	3	20	59
Fort Smith	67.93	75.40	84.30	77.20	76.21	92	60	15.8	16.2	4	9	7	9	18	26
Fort Gibson	69.30	81.23	86.96	74.93	78.11	94	59	15.9	19.1	8	10	3	5	3	4
Jefferson Barracks	69.83	80.10	87.56	76.43	78.48	95	58	16.5	20.5	15	22	1	1	29	53
St. Louis Arsenal	69.84	79.43	91.50	71.76	78.13	104	58	25.9	20.1	6	11	4	6	5	8
Newport Barracks	67.16	76.36	84.90	75.60	76.00	96	55	20.0	21.0	8	24	4	7	0	0
Fort Mackinac	51.63	58.86	62.20	51.30	56.00	80	41	24.0	15.0	1	3	5	25	6	24
Fort Brady	52.93	64.00	67.70	52.87	59.88	96?	40	36.1	19.9	0	0	2	8	24	67
Fort Ripley	55.30	65.83	70.90	59.63	62.92	86	33	23.1	29.9	3	9	28	89	4	8
Fort Snelling	61.83	70.70	73.50	65.30	67.83	86	49	18.2	18.8	2	5	11	25	6	8
Fort Leavenworth	66.63	73.70	80.50	70.45	72.82	90	56	17.2	16.8	1	1	0	0	0	0
Fort Kearney	61.33	71.90	81.03	66.80	70.26	94	44	23.7	26.3	3	9	1	2	2	3
Fort Laramie	58.63	65.26	72.70	65.76	65.59	88	49	22.4	16.6	14	30	9	16	8	24
Fort Atkinson	68.08	72.61	80.00	72.80	73.37	88	58	14.6	15.4	1	1	5	12	5	12
Fort Arbuckle	68.60	79.10	86.96	74.73	77.35	95	54	17.7	23.3	5	5	1	1	4	4
Fort Worth	68.60	76.90	84.50	74.10	76.02	91	60	15.0	16.0	15	28	12	29	6	9
Fort Belknap	66.36	83.08	89.33	73.73	78.12	97	54	18.9	24.1	7	8	1	1	3	3

MONTH OF JUNE, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	12	21	41	17	36	17	32	25	33	1.53	3.03	4.33	1.10	2.47	10	20	6	0	0.35	
13	25	27	57	25	58	8	19	22	42	4.33	5.90	6.16	5.43	5.46	8	22	8	0	1.47	
2	5	5	13	35	70	38	59	19	43	4.46	4.53	4.70	4.96	4.64	15	15	5	0	0.52	
11	32	1	1	26	87	14	41	12	42	5.20	5.70	6.46	5.83	5.80	17	13	3	0	2.55	
9	28	54	146	17	43	7	22	6	28	4.63	5.50	5.97	5.77	5.47	18	12	8	0	2.38	
10	12	0	0	56	67	6	8	26	46	3.30	4.70	4.90	4.70	4.40	14	16	13	0	6.69	
29	36	18	20	24	29	3	3	10	17	4.66	5.90	5.70	4.86	5.28	17	13	8	0	4.42	
25	25	18	23	22	22	10	10	6	7	4.23	7.26	8.36	4.93	6.20	22	8	7	0	4.80	
19	58	49	135	7	18	4	9	7	25	5.16	6.13	5.53	6.60	5.86	19	12	12	0	3.77	
4	8	53	130	6	17	25	56	14	33	8.20	8.73	8.30	7.46	8.17	23	7	6	0	1.62	
42	66	0	0	28	48	0	0	22	39	....	....	....	....	....	22	8	5	0	0.72	Temp. inaccurate at
15	19	28	57	4	10	25	47	5	12	8.03	7.66	7.76	7.43	7.72	24	6	4	0	1.60	[3 p. m.
13	18	16	54	18	49	11	26	9	13	5.60	5.93	5.70	5.76	6.00	20	10	7	0	1.32	
8	14	23	36	5	16	32	109	3	10	7.76	8.33	7.43	8.32	7.96	21	9	5	0	0.81	[9 a. m
13	46	4	18	41	156	5	22	15	72	5.76	6.10	5.06	6.83	5.94	21	9	6	0	2.00	Temp. inaccurate at
17	38	9	18	21	46	32	64	9	24	4.87	6.23	6.70	5.00	5.70	24	6	2	0	0.60	Therm. protected.
17	38	24	48	19	47	12	19	18	43	5.00	5.60	5.33	6.40	5.58	21	9	6	0	1.56	Mid-day temps. in ex-
8	17	8	22	49	121	1	3	2	2	4.60	5.90	5.70	6.97	5.79	23	7	5	0	0.56	[cess from local pe-
28	65	16	42	10	26	6	8	3	5	5.83	6.10	6.86	7.76	6.64	22	8	2	0	1.55	[culiarities of posi-
25	72	6	12	2	4	12	18	0	0	4.86	6.40	6.06	5.63	5.74	25	5	13	0	2.75	[tion.
24	50	52	91	0	0	1	1	0	0	5.10	4.96	4.73	4.73	4.88	18	12	14	0	29.35?	
15	37	12	38	5	18	1	4	0	0	2.96	3.33	3.30	4.57	3.54	12	18	19	0	18.11	
17	27	9	12	1	3	15	36	8	16	4.33	4.16	2.53	3.76	3.69	12	18	20	0	25.58	
20	38	26	41	4	12	8	17	1	5	6.70	4.22	4.17	4.00	4.77	12	10	17	0	9.09	Rain in full; other
14	14	10	11	1	1	2	2	1	1	2.43	4.13	2.13	4.20	3.22	10	20	18	0	3.54	[observs. wanting [from 4th to 11th.
27	117	7	28	21	89	1	3	23	39	0.13	0.70	0.33	4.83	2.00	8	22	5	0	4.51	Scale of clearness too
35	62	11	16	8	16	0	0	12	24	6.90	5.03	4.20	7.63	6.14	20	10	6	0	2.00	[low.
12	26	5	10	7	15	16	29	2	5	3.65	2.57	1.34	3.76	2.83	6	16	2	0	1.86	First 22 days.
12	15	41	52	3	5	7	8	6	6	7.36	7.10	5.00	7.43	6.72	23	7	7	0	2.05	
17	33	35	81	0	0	1	1	0	0	5.80	5.03	5.03	7.56	5.86	21	9	2	0	0.90	
13	43	62	214	4	15	7	17	0	0	4.13	4.30	3.23	6.60	4.56	15	15	5	0	2.29	
11	25	21	41	5	11	3	6	2	3	7.50	6.46	6.43	9.40	7.45	23	7	4	0	2.45	
25	32	45	57	2	2	0	0	2	4	6.96	5.83	4.46	8.43	6.42	22	8	6	0	1.60	
16	39	48	100	8	17	0	0	0	0	5.00	7.53	7.53	7.06	6.78	25	5	6	0	3.19	
1	1	15	34	26	74	23	56	3	6	7.76	7.60	6.80	3.26	6.35	23	7	7	0	3.60	Extreme temps. local;
15	20	55	83	24	59	2	7	2	7	7.16	6.63	4.96	8.23	6.75	24	6	2	0	1.30	[clearness inaccu-
22	65	18	46	6	26	32	112	27	92	4.63	4.64	5.10	5.33	4.92	16	14	11	0	6.23	[rate.
11	24	6	13	20	59	22	78	5	21	3.83	4.70	4.50	4.47	4.38	15	15	15	0	3.94	Inaccurate.
22	71	12	33	18	68	12	36	12	45	4.10	3.83	3.80	4.10	3.96	12	18	14	*1	8.72	*"A few flakes."
27	56	17	34	26	64	7	19	13	32	6.73	7.56	7.30	6.80	7.10	20	10	15	0	7.59	[Frost on morn-
9	14	8	17	69	150	6	10	14	22	5.03	5.16	5.20	4.90	5.07	18	12	10	0	5.95	ing of 25th.
20	58	47	146	3	8	2	5	14	36	4.70	5.83	6.03	6.70	5.81	22	8	6	0	2.47	
4	16	2	6	2	8	3	12	26	62	6.33	7.00	5.73	5.33	6.10	21	9	10	0	4.95	
41	116	18	49	19	52	5	11	4	18	8.16	9.03	9.30	7.60	8.52	24	6	3	0	4.35	
13	14	61	86	21	31	1	1	3	3	8.46	9.53	9.00	8.13	8.78	27	3	6	0	4.57	
51	150	35	151	1	5	0	0	3	6	4.60	4.70	4.90	7.10	5.32	20	10	9	0	3.60	
14	17	42	50	4	4	0	0	2	2	6.56	7.53	7.80	8.70	7.65	24	6	5	0	2.74	

MONTH OF JUNE, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Phantom Hill	69.20	76.83	85.53	76.30	76.97	92	62	15.0	15.0	5	11	4	14	12	19
Fort Chadbourne	58.66	70.47	82.43	53.53*	70.52	89	43	18.5	27.5	0	0	4	5	0	0
Fort Graham	73.03	78.86	90.76	76.33	79.75	96	68	16.3	11.7	4	8	13	28	13	26
Fort Croghan	72.00	78.60	86.26	76.53	78.35	91	64	12.6	14.4	30	94	6	16	17	37
Fort McKavett	65.40	73.40	84.33	70.30	73.36	94	58	20.6	15.4	1	3	12	17	22	29
Fort Mason	71.90	76.13	83.13	76.67	76.96	92	66	15.0	11.0	1	2	5	7	6	11
Fort Terrett	66.13	75.80	81.93	72.03	73.97	90	56	16.0	18.0	0	0	1	1	26	40
Fort Ewell	75.46	85.16	92.40	82.16	83.80	100	69	16.2	14.8	4	5	2	4	3	5
Fort Brown	74.90	86.26	87.66	79.40	82.06	92	70	9.9	12.1	0	0	4	9	25	52
Ringgold Barracks	76.06	84.06	91.83	83.23	83.80	99	70	15.2	13.8	5	8	2	8	3	7
Fort McIntosh	74.33	86.03	95.13	81.53	84.26	105	66	20.7	18.3	0	0	5	9	8	15
Fort Inge	69.86	81.33	86.80	73.36	77.84	95	64	17.2	13.8	1	2	4	10	30	50
Fort Duncan	73.86	80.36	90.33	80.26	81.20	100	63	18.8	18.2	3	9	3	5	63	148
Fort Clarke	71.04	77.66	85.10	74.93	77.18	92	64	14.8	13.2	2	4	6	16	9	16
Fort Fillmore	69.86	84.10	94.53	78.86	81.84	104	55	22.2	26.8	2	3	6	16	4	11
Fort Webster	58.13	80.26	84.93	61.67	71.25	93	49	21.7	21.3	4	4	2	2	0	0
Fort Conrad	59.86	77.13	89.63	74.76	75.35	98	46	22.6	29.4	6	12	16	52	5	12
Albuquerque	70.03	74.27	75.90	73.50	73.43	81	63?	7.6	10.4	0	0	1	5	20	42
Santa Fē	56.03	71.26	76.86	61.43	66.40	88	40	21.6	26.4	10	17	14	42	11	31
Fort Union	49.73	71.76	80.20	56.40	64.52	90	39	25.5	25.5	21	29	10	19	16	36
Fort Massachusetts	41.86	68.83	74.43	50.50	58.91	87	30	28.1	28.9	34	108	1	3	1	3
Fort Defiance	47.13	67.56	82.63	62.10	64.86	98	35	33.1	29.9	20	32	4	9	2	6
Fort Yuma	75.36	91.10	103.44	88.06	89.49	116	61	26.5	28.5	5	6	3	6	5	6
San Diego	61.73	70.03	77.53	64.43	68.43	84	56	15.6	12.4	0	0	4	4	14	15
Fort Jurupa	61.43	73.43	83.30	69.16	71.83	94	54	22.2	17.8	0	0	0	0	4	4
Fort Miller	64.63	89.03	104.83	79.80	84.57	121	51	36.4	33.6	5	9	6	9	27	49
San Francisco	52.30	59.83	64.83	53.43	57.60	78	49	20.4	8.6	0	0	2	6	2	2
Benicia	58.13	67.90	83.46	65.16	68.68	100	52	31.3	16.7	0	0	0	0	0	0
Fort Reading	64.06	80.40	93.20	76.36	78.51	105	51	26.5	27.5	28	50	2	2	0	0
Fort Jones	48.66	67.76	78.90	62.10	64.36	95	32	30.6	32.4	11	20	1	1	3	3
Columbia Barracks	55.60	63.93	72.63	60.20	63.09	88	50	24.9	13.1	5	10	2	8	10	29
Dalles of the Columbia	53.80	69.46	79.20	63.86	66.58	94	43	27.4	23.6	1	4	2	4	11	12
Fort Steilacoom	50.43	62.10	72.33	57.00	60.47	83	47	22.5	13.5	2	7	0	0	1	1

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* The temperature observations at *Fort Chadbourne* are inaccurate for most of this year—evidently several degrees too low at 9 p m. until the middle of August, when they are as much too high for two or three months. The means are taken from the first three hours of observation for this period.

MONTH OF JUNE, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	9	86	286	4	15	7	16	0	0	3.73	5.80	5.90	7.46	5.72	19	11	5	0	2.90	Temp.in ex.at sunr'e.
25	34	70	75	15	20	0	0	0	0	5.33	5.83	6.57	6.10	5.96	20	10	7	0	5.48	Temp. inaccurate.
30	61	30	67	19	49	1	2	5	11	6.76	5.80	5.06	9.23	6.71	24	6	3	0	2.00	
43	157	31	98	3	9	1	1	0	0	2.80	3.80	4.33	5.73	4.17	17	13	8	0	2.52	
45	91	33	65	0	0	0	0	0	0	7.03	7.20	6.33	5.63	6.55	24	6	8	0	5.49	
15	32	68	186	7	27	1	1	2	4	3.60	4.63	4.73	6.93	4.97	19	11	9	0	7.58	
90	224	1	1	0	0	0	0	0	0	4.40	5.63	6.23	4.06	5.08	20	10	6	0	6.00	
65	119	2	3	1	2	0	0	0	0	5.43	5.16	4.36	4.90	4.96	16	14	9	0	9.65	
44	96	24	59	22	52	0	0	0	0	4.33	3.66	4.16	4.43	4.15	14	16	7	0	1.70	
53	116	49	108	0	0	0	0	2	2	3.30	3.00	2.33	5.66	3.57	10	20	10	0	1.45	
97	148	0	0	0	0	1	1	2	2	4.67	5.10	4.63	6.10	5.03	22	8	9	0	2.43	
47	105	4	7	0	0	0	0	0	0	3.13	5.10	6.06	7.46	5.44	21	9	9	0	9.00	
42	166	4	16	0	0	0	0	1	3	6.60	5.97	6.93	7.67	6.79	25	5	8	0	10.70	
66	213	20	46	0	0	0	0	4	5	1.76	2.43	3.06	5.30	3.14	10	20	8	0	10.21	
19	48	11	27	29	66	7	29	1	4	9.20	9.13	8.40	9.03	8.94	30	0	3	0	0.28	
5	9	6	10	22	38	59	89	19	29	9.73	9.83	8.97	9.43	9.49	30	0	2	0	1.08	
1	2	14	40	44	113	24	42	4	4	8.23	8.40	6.56	7.96	7.79	29	1	5	0	0.74	
8	17	29	30	3	6	26	38	0	0	6.63	6.53	5.67	6.07	6.23	28	2	3*	0	0.60	* "Very light." Therm. protected.
7	19	6	12	5	12	21	31	13	21	7.66	7.73	7.23	7.40	7.51	27	3	5	0	1.88	
5	13	17	29	18	64	16	49	11	29	7.73	7.23	6.36	6.50	6.96	26	4	2	0	0.11	
8	24	25	75	24	72	16	55	10	28	7.86	7.80	6.60	8.06	7.56	27	3	4	0	1.11	
0	0	0	0	4	8	38	91	21	52	9.50	9.76	9.16	9.56	9.50	30	0	4	0	0.43	
7	23	25	80	20	49	27	44	16	25	8.40	8.63	8.43	9.60	8.77	29	1	0	0	0.00	
10	10	22	27	46	89	23	33	1	1	0.60	5.70	8.76	5.86	5.23	18	12	1	0	0.05	
2	2	0	0	87	219	9	10	2	6	6.43	7.76	8.13	8.40	7.68	27	3	0	0	0.00	
24	39	8	14	6	12	20	41	6	17	9.86	9.83	9.70	9.60	9.75	30	0	0	0	0.00	
1	1	1	1	16	53	54	208	41	164	5.90	6.46	8.13	7.43	6.98	21	9	0	0	0.00	
0	0	2	5	3	10	113	427	0	0	7.66	8.13	8.60	8.43	8.21	29	1	0	0	0.00	
1	1	8	16	3	5	3	5	7	10	8.03	8.53	8.33	8.60	8.37	29	1	0	0	0.00	
1	1	17	22	3	5	25	58	6	19	7.73	7.80	7.13	8.56	7.81	26	4	2	0	0.41	27th; "Heavy frost, destroying vegetables."
0	0	0	0	2	8	48	181	25	92	4.10	4.43	5.16	6.13	4.96	15	15	2	0	0.90	
2	3	5	5	43	107	36	84	15	51	7.43	8.40	8.13	7.93	7.97	28	2	0	0	0.00	
4	8	20	47	36	116	41	123	16	34	4.16	4.26	5.28	6.00	4.93	18	12	7	0	3.09	

MONTH OF JULY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	55.35	65.72	66.41	58.67	61.54	80	52	18.5	9.5	11	15	2	2	7	7
Fort Preble	62.70	71.41	74.58	63.80	68.12	84	54	15.9	14.1	35	80	8	18	2	6
Fort Constitution	62.67	69.67	76.09	61.35	67.45	90	56	22.6	11.4	13	22	7	19	3	8
Fort Independence	66.23	71.07	75.48	71.89	71.17	85	61	13.8	10.2	3	5	19	54	4	9
Fort Adams	67.52	74.64	77.97	71.35	72.87	86	62	13.1	10.9	17	61	5	19	4	16
Fort Trumbull	66.51	73.23	76.77	70.45	71.74	86	60	14.3	11.7	1	1	30	52	1	2
Fort Hamilton	68.09	72.83	80.22	72.93	73.52	89	63	15.5	10.5	28	34	8	9	3	4
Fort Columbus	66.51	72.58	81.90	70.09	72.77	89	61	16.2	11.8	7	7	17	20	5	5
West Point	64.70	71.87	76.93	69.70	70.80	84	58	13.2	12.8	36	47	1	2	3	4
Watervliet Arsenal	62.32	74.32	78.93	67.40	70.74	89	50	18.3	20.7	14	35	2	5	1	2
Fort Ontario	61.38	70.80	78.54	65.74	69.12	89	54	19.9	15.1	0	0	30	66	0	0
Fort Niagara	64.71	71.51	78.45	66.00	69.92	92	56	22.1	13.9	18	37	16	35	4	5
Alleghany Arsenal	62.29	73.84	81.35	71.35	72.21	90	52	17.8	20.2	26	40	19	44	3	3
Carlisle Barracks	64.74	75.26	83.29	71.84	73.78	94	56	20.2	17.8	6	16	5	14	22	58
Fort Mifflin	64.38	80.16	84.25	68.93	74.43	98	56	23.6	18.4	0	0	15	53	21	58
Fort McHenry	71.41	76.64	81.29	74.70	76.01	90	67	14.0	9.0	21	39	24	64	1	1
Fort Washington	69.77	78.25	88.41	73.83	77.57	98	65	20.4	12.6	15	30	18	33	3	4
Fort Monroe	73.58	76.78	82.39	77.42	77.54	98	69	20.5	8.5	0	0	22	52	11	26
Fort Moultrie	79.29	84.87	86.41	80.74	82.83	91	73	8.2	9.8	1	2	4	11	3	7
New Smyrna	71.16	85.67	82.77	76.61	79.05	94	69	14.0	10.0	1	1	3	6	33	61
Fort Pierce	84.45	87.64	90.51	82.23	86.21	95	78	8.8	8.2	3	3	0	0	3	6
Key West Barracks	80.68	83.80	86.16	83.09	83.43	88	76	4.6	7.4	1	4	3	5	70	235
Fort Myers	81.77	84.38	87.61	83.77	84.38	92	76	7.6	8.4	4	7	5	6	18	28
Fort Brooke	79.35	82.55	86.29	81.90	82.52	90	74	7.5	8.5	0	0	5	9	28	65
Fort Meade	72.75	81.29	85.25	76.74	79.01	92	68	13.0	11.0	0	0	8	9	50	57
Barrancas Barracks	77.03	83.06	85.09	80.35	81.38	89	72	7.6	9.4	1	1	0	0	0	0
Mount Vernon Arsenal	73.35	81.74	83.03	77.06	78.55	92	61	13.4	17.6	5	6	13	16	9	11
East Pascagoula	79.11	83.79	85.58	82.04	82.63	91	74	8.4	8.6	19	35	3	6	0	0
Baton Rouge Barracks	74.32	81.12	84.12	74.74	78.58	91	65	11.4	13.6	9	12	0	0	16	17
Fort Towson	71.45	80.84	88.51	77.97	79.69	94	60	14.3	19.7	6	6	15	18	38	53
Fort Washita	70.58	79.83	86.16	77.06	78.41	95	62	16.6	16.4	12	37	6	20	29	78
Fort Smith	71.22	77.00	86.00	77.51	77.93	91	61	13.1	16.9	1	1	11	19	29	45
Fort Gibson	71.74	82.45	89.03	77.71	80.23	97	59	16.8	21.2	6	10	7	7	9	9
Jefferson Barracks	67.90	79.16	84.41	75.16	76.66	96	56	19.3	20.7	0	0	2	4	18	22
St. Louis Arsenal	68.65	76.26	86.90	72.13	76.00	100	59	24.0	17.0	14	29	7	11	34	50
Newport Barracks	66.61	72.58	80.83	73.61	73.41	93	58	19.6	15.4	11	33	9	26	3	4
Fort Mackinac	57.67	66.12	72.03	59.41	63.81	78	48	14.2	15.8	11	25	1	3	3	7
Fort Brady	52.84	69.39	70.35	55.58	62.04	81	44	19.0	18.0	2	8	0	0	7	17
Fort Ripley	54.51	70.41	75.87	62.00	65.70	82	43	16.3	22.7	22	48	16	28	2	5
Fort Snelling	63.96	74.90	76.83	66.70	70.60	82	54	11.4	16.6	8	13	6	9	2	5
Fort Ridgely	59.83	73.31	78.55	68.10	69.95	87	49	17.1	20.9	14	21	7	8	4	6
Fort Leavenworth	67.51	76.41	82.90	74.06	72.72	94	58	21.3	14.7	1	1	12	14	1	1
Fort Kearney	62.80	72.22	82.41	68.67	71.52	91	50	19.5	21.5	7	20	1	3	23	49
Fort Laramie	65.51	71.35	81.70	73.32	72.97	87	59	14.0	14.0	4	9	17	37	15	40
Fort Atkinson*	73.92	78.56	85.89	79.68	79.51	95	64	15.5	15.5	1	1	6	9	11	14
Fort Arbuckle	72.41	82.67	90.12	72.83	79.50	98	61	18.5	18.5	11	11	7	7	10	13
Fort Worth	71.22	80.38	86.30	75.06	78.24	96	62	17.8	16.2	14	31	17	39	10	21

* First 14 days at the post, and 11 days, from 19th to 29th, at Walnut Creek, a few miles distant.

MONTH OF JULY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	REMARKS.
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	9	39	76	34	56	8	9	13	22	1.38	3.48	3.74	0.52	2.28	9	22	9	0	1.70	Temp. inaccurate.
10	16	11	21	7	24	6	15	43	108	4.74	5.67	6.03	4.03	5.12	18	13	8	0	2.68	
5	14	19	45	24	46	14	22	31	69	4.06	4.55	5.25	4.38	4.56	16	15	8	0	0.92	
15	33	0	0	38	89	11	28	21	49	4.69	4.73	4.90	4.58	4.73	18	13	8	0	4.04	
2	6	59	165	4	9	31	93	2	6	5.06	5.35	4.64	6.64	5.42	17	14	6	0	4.92	
7	9	1	1	55	86	8	9	19	24	3.10	4.51	4.10	4.61	4.08	13	18	9	0	7.87 ?	
10	16	18	20	34	55	1	2	17	21	4.93	4.74	4.64	5.03	4.84	14	17	11	0	5.83	
12	13	15	19	26	35	18	19	14	14	3.93	6.00	5.46	4.00	4.85	20	11	10	0	4.40	
6	15	37	93	4	9	4	4	16	35	5.16	5.00	4.87	6.32	5.34	18	13	14	0	10.48	
3	8	44	123	9	25	31	80	10	24	6.96	7.38	6.70	6.38	6.86	22	9	8	0	3.54	
28	47	0	0	46	59	0	0	26	45	8.64	8.35	8.32	8.32	8.41	23	8	3	0	0.13 ?	Inaccurate.
1	3	23	45	7	14	25	53	19	43	6.41	6.80	8.00	7.64	7.21	24	7	5	0	2.71	
1	2	10	19	18	39	4	10	9	19	5.30	5.77	5.32	5.19	5.40	20	11	10	0	2.74	
6	19	14	39	8	16	49	106	11	26	6.29	7.35	7.06	6.68	6.85	24	7	11	0	2.63	
18	62	8	28	24	84	7	24	27	99	3.93	4.03	4.38	5.39	4.43	14	17	13	0	8.71	
8	21	7	15	16	43	29	43	8	18	3.74	4.45	5.35	4.90	4.61	15	16	10	0	3.30	
11	25	15	29	17	27	5	12	28	47	3.12	3.38	3.29	4.51	3.58	12	19	15	0	3.88	
10	21	9	18	64	157	1	3	5	10	3.35	4.13	3.45	5.13	4.02	14	17	20	0	5.79	
32	94	19	68	49	126	10	16	5	7	4.74	3.64	4.61	6.06	4.76	16	15	8	0	10.88	
16	42	10	17	20	37	22	31	1	1	6.45	6.48	4.51	6.29	5.93	23	8	18	0	7.23	
34	65	48	72	0	0	37	37	0	0	7.45	7.64	7.87	8.06	7.76	29	2	3	0	2.50	Morning tempera-
30	80	18	50	1	4	0	0	0	0	4.06	4.55	5.26	7.06	5.23	19	12	9	0	2.33	[tures in excess.
9	19	23	39	21	47	24	40	5	7	6.90	6.67	5.29	5.54	6.10	23	8	14	0	6.35	
16	39	38	76	8	24	13	31	1	2	6.35	6.32	5.35	4.78	5.70	21	10	10	0	4.12	
29	31	14	15	6	10	13	14	2	3	3.41	6.09	3.67	4.55	4.43	15	16	20	0	4.52	
11	39	0	0	54	83	7	24	36	56	0.67	0.83	1.09	3.16	1.41	13	18	6	0	3.80	Clearness inaccurate.
26	37	20	34	9	12	23	37	16	26	5.77	5.13	4.75	7.68	5.83	20	11	12	0	12.64	
30	90	15	56	17	54	14	33	11	21	1.19	1.29	1.25	2.19	1.48	0	31	18	0	10.72	
16	21	33	44	24	30	19	24	3	4	3.83	4.03	3.51	6.90	4.57	15	16	15	0	11.18	
15	20	26	55	0	0	2	4	3	5	3.16	4.29	3.96	6.19	4.40	17	14	13	0	5.38	
14	42	54	144	5	12	4	8	1	3	3.19	3.20	2.90	6.41	3.92	15	16	9	0	4.48	
12	18	7	7	5	9	4	12	5	12	5.77	4.64	4.96	7.87	5.81	21	10	6	0	2.75	
18	22	32	38	4	6	0	0	4	7	4.90	4.32	3.80	8.09	5.28	18	13	7	0	0.76	
14	24	43	61	14	28	32	51	0	0	2.41	3.87	4.35	5.03	3.92	14	17	9	0	6.90	
9	10	4	5	13	17	11	23	0	0	7.16	6.74	7.03	2.36	5.82	18	13	6	0	4.15	
26	44	39	56	26	41	3	7	5	14	5.51	5.74	4.54	7.41	5.80	20	11	6	0	4.40	
10	21	11	13	11	26	39	92	25	57	6.67	7.16	6.41	6.67	6.73	21	10	7	0	3.56	
6	17	16	32	24	55	40	93	9	35	6.47	6.35	4.94	5.47	5.81	18	13	9	0	3.27	
13	45	22	54	21	52	8	23	13	38	6.09	6.22	6.00	6.90	6.30	23	8	6	0	4.35	
29	65	24	41	25	50	8	19	17	45	5.74	7.19	6.83	6.67	6.61	23	8	7	0	1.65	
22	65	15	21	6	20	4	8	39	78	4.83	5.51	4.89	5.96	5.05	18	11	4	0	0.52	First two days not
14	18	9	18	51	64	1	1	12	16	3.96	4.83	4.74	4.66	4.55	20	11	5	0	3.21	[observed.
19	47	22	52	6	18	5	7	5	15	3.67	4.61	5.54	4.71	4.63	16	15	10	0	8.28	
2	4	1	5	1	5	2	5	8	22	6.06	7.41	6.38	6.51	6.59	25	6	6	0	1.86	
29	54	6	14	10	21	5	6	10	27	....	....	....	....	....	25	0	..	..	....	
18	20	45	46	14	16	6	6	3	3	8.38	8.96	8.29	8.64	8.57	28	3	7	0	3.27	
36	118	25	80	8	29	1	2	6	18	2.26	3.03	3.00	5.58	3.47	13	18	13	0	5.72	

MONTH OF JULY, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Belknap..........	70.91	84.94	92.00	79.02	81.72	102	62	20.3	19.7	3	3	3	4	4	6
Phantom Hill..........	71.96	81.90	90.48	79.67	81.00	100	64	19.0	17.0	5	11	5	13	18	40
Fort Chadbourne.......	65.65	79.34	82.77	57.42	75.92	96	48	20.1	27.9	11	12	1	1	0	0
Fort Graham..........	71.74	80.00	89.29	78.38	79.35	100	68	20.6	11.4	5	10	14	30	11	22
Fort Croghan..........	73.19	79.61	87.93	79.38	80.03	99	62	19.0	18.0	1	1	15	35	4	8
Fort McKavett........	67.96	80.80	83.96	72.51	77.56	98	51	20.4	26.6	9	19	13	17	1	1
Fort Mason...........	74.13	78.13	85.81	80.06	79.53	95	66	15.5	14.5	4	13	6	16	2	4
Fort Terrett...........	67.58	78.12	85.80	74.00	76.37	96	58	19.6	18.4	0	0	6	9	25	31
Fort Ewell............	76.60	88.38	97.32	83.77	86.52	105	71	18.5	15.5	1	2	1	2	3	4
Fort Brown............	76.54	88.29	91.83	81.12	84.45	94	75	9.5	9.5	0	0	0	0	1	2
Ringgold Barracks.....	78.32	86.70	97.67	86.60	87.32	102	76	14.7	11.3	0	0	0	0	2	10
Fort McIntosh.........	76.00	88.94	99.71	86.19	87.71	108	72	20.3	15.7	1	2	12	18	4	6
Fort Inge.............	70.54	82.45	89.64	82.45	81.27	96	67	14.7	14.3	3	6	12	19	66	114
Fort Duncan..........	74.35	84.00	97.12	83.12	84.65	104	70	19.4	14.6	1	4	2	3	92	240
Fort Clarke...........	73.93	80.16	88.00	77.74	79.96	94	69	14.0	11.0	3	10	3	6	7	13
Fort Fillmore..........	75.83	85.83	96.54	83.25	85.36	106	72	20.6	13.4	0	0	13	27	6	15
Fort Webster..........	65.22	86.61	89.22	66.00	76.76	99	54	22.2	22.8	4	6	7	8	2	2
Fort Conrad...........	67.41	79.96	93.54	78.12	79.76	98	62	18.2	17.8	8	25	23	63	17	48
Albuquerque...........	76.71	78.58	79.77	79.26	78.58	86	73	7.4	5.6	2	4	0	0	16	19
Santa Fē..............	59.38	70.41	81.25	66.45	69.37	88	54	18.6	15.4	20	42	12	29	11	25
Fort Union............	50.03	75.35	80.19	53.77	64.84	93	44	28.2	20.8	29	33	19	28	6	11
Fort Massachusetts.....	47.38	73.16	76.61	54.41	62.89	87	39	24.1	23.9	44	134	0	0	9	25
Fort Defiance.........	59.22	74.93	81.35	66.58	70.52	94	52	23.5	18.5	26	47	9	18	6	9
Fort Yuma............	83.96	93.74	105.90	92.90	94.12	111	76	16.9	18.1	6	10	3	3	3	9
San Diego.............	66.58	74.22	82.16	68.45	72.85	88	61	15.1	11.9	0	0	4	4	7	7
Rancho de Jurupa.....	66.09	75.90	88.68	74.22	76.22	95	61	18.8	15.2	0	0	0	0	3	3
Fort Miller............	67.45	92.12	111.06	87.61	89.56	118	59	28.4	30.6	6	6	1	1	16	17
San Francisco.........	52.54	57.16	63.25	53.38	56.58	66	51	9.4	5.6	0	0	0	0	0	0
Benicia Barracks......	55.77	62.16	81.00	61.61	65.14	93	52	27.9	13.1	0	0	0	0	0	0
Fort Reading..........	67.48	86.38	101.54	83.64	84.76	109	56	24.2	28.8	10	17	1	1	0	0
Fort Jones............	51.03	73.73	91.03	72.35	72.04	101	42	29.0	30.0	5	6	1	1	6	6
Columbia Barracks.....	61.33	71.60	80.92	69.47	70.83	91	52	20.2	18.8	4	12	1	2	5	11
Dalles of the Columbia.	58.00	77.87	91.64	72.19	74.92	105	46	30.1	28.9	0	0	0	0	1	2
Fort Steilacoom.......	51.54	66.67	81.93	65.77	66.73	94	44	27.3	22.7	3	10	2	11	0	0

MONTH OF JULY, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
11	12	28	30	4	6	1	1	0	0	5.54	6.42	6.29	8.61	6.71	23	8	5	0	2.27	
8	22	52	163	29	91	3	5	1	2	4.29	6.32	5.93	6.74	5.82	20	11	5	0	1.15	
0	0	96	109	11	14	0	0	0	0	7.00	7.08	6.71	5.48	6.57	22	9	5	0	2.80	
35	72	20	42	12	24	6	12	6	12	4.70	4.22	4.25	6.90	5.02	19	12	8	0	2.08	
48	120	21	37	11	25	2	7	2	2	3.19	5.80	5.25	5.22	4.87	21	10	9	0	5.59	
43	69	57	95	0	0	0	0	0	0	6.61	6.51	6.45	6.38	6.49	22	9	6	0	4.03	
21	45	48	103	15	33	2	2	1	2	6.71	6.68	6.40	8.53	7.08	23	8	6	0	6.48	
91	141	0	0	0	0	0	0	0	0	6.25	6.67	7.09	4.90	6.23	25	6	5	0	3.68	
85	156	0	0	0	0	0	0	1	2	6.93	7.74	7.12	7.77	7.39	24	7	4	0	2.22	
46	115	23	41	49	103	2	4	0	0	6.93	6.32	6.32	6.22	6.45	22	9	0	0	0.00	
61	177	57	115	0	0	0	0	0	0	5.00	5.54	3.09	7.67	5.32	22	9	3	0	0.15	
107	200	0	0	0	0	0	0	0	0	6.29	6.03	5.19	7.81	6.33	25	6	6	0	4.51	
36	76	0	0	0	0	0	0	0	0	5.83	6.32	7.19	8.48	6.96	26	5	6	0	4.97	
20	65	0	0	1	1	0	0	4	10	8.38	7.38	8.18	9.22	8.29	26	5	5	0	5.28	
103	256	8	17	0	0	0	0	0	0	3.90	4.29	5.29	8.12	5.40	19	12	6	0	3.87	
18	32	20	38	19	31	9	18	1	3	8.93	8.90	8.09	8.12	8.51	31	0	9	0	2.80	
1	2	4	12	13	25	45	68	44	56	9.20	9.40	7.80	8.60	8.75	31	0	6	0	2.55	
2	2	18	43	14	40	14	35	2	3	6.70	7.96	5.51	5.80	6.52	27	4	10	0	2.78	
2	3	26	33	0	0	14	14	0	0	5.87	6.23	6.13	5.48	5.93	27	4	8	0	2.57	Inaccurate.
8	28	3	7	4	10	18	35	12	26	6.25	8.09	5.19	3.83	5.84	26	5	14	0	7.45	
3	7	8	15	17	48	25	51	11	22	7.35	6.58	5.67	5.35	6.24	23	8	18	0	4.19	
7	20	18	50	10	30	9	25	25	74	6.90	7.19	4.32	5.64	6.01	24	7	14	0	3.04	
4	8	4	12	11	30	32	67	20	31	8.83	9.67	7.96	8.93	8.85	31	0	10	0	1.43	
36	112	35	105	24	52	8	9	3	4	5.81	6.63	6.64	7.67	6.69	26	5	2	0	0.25	
3	3	7	8	48	97	47	68	10	11	0.10*	7.58	9.16	6.83	5.92	25	6	0	0	0.00	* Dense fogs at sunrise.
0	0	0	0	113	214	7	8	0	0	6.03	7.83	7.90	8.16	7.48	29	2	0	0	0.00	
6	7	9	11	13	15	47	55	10	13	9.06	9.38	9.38	9.33	9.29	29	2	1	0	0.01	
0	0	0	0	54	166	63	232	5	19	1.29	2.06	4.51	2.12	2.50	10	21	0	0	0.00	
0	0	0	0	0	0	123	571	0	0	4.70	8.19	7.55	9.06	7.87	31	0	0	0	0.00	Force of wind in excess.
1	1	15	18	3	5	2	2	5	6	9.16	9.25	8.87	8.90	9.04	30	1	0	0	0.00	
6	8	17	18	14	20	28	63	7	20	9.09	9.09	7.77	9.25	8.80	30	1	3	0	0.13	
2	4	0	0	1	2	35	79	59	126	6.20	6.50	7.28	8.80	7.12	25	6	2	0	0.30	
6	6	11	12	82	139	16	40	5	18	7.96	8.41	8.80	8.64	8.45	30	1	1	0	0.08	
2	6	18	46	43	117	24	71	30	97	4.64	6.38	6.96	8.06	6.51	24	7	3	0	0.33	

MONTH OF AUGUST, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Sullivan	54.93	64.58	67.38	58.34	61.30	75	50	13.7	11.3	4	5	5	6	22	26
Fort Preble	59.61	68.19	69.87	62.67	65.34	90	51	24.7	14.3	22	60	8	15	5	9
Fort Constitution	60.64	66.87	73.06	61.54	60.53	94	50	33.5	10.5	10	20	11	30	17	44
Fort Independence	64.06	70.54	74.06	71.25	69.98	82	55	12.0	15.0	6	19	25	89	1	3
Fort Adams	66.42	71.58	74.87	70.48	70.84	86	56	15.2	14.8	42	164	1	4	20	69
Fort Trumbull	66.68	71.84	76.64	70.13	71.32	90	55	18.7	16.3	0	0	43	97	0	0
Fort Hamilton	69.45	74.32	80.03	73.09	74.22	89	60	14.8	14.2	16	21	23	31	2	2
Fort Columbus	67.42	73.45	81.64	71.58	73.52	94	55	20.5	18.5	7	12	22	45	7	11
West Point	65.41	72.67	77.35	70.12	71.39	90	54	18.6	17.4	41	111	7	20	0	0
Watervliet Arsenal	64.35	72.58	77.77	66.86	70.39	88	50	17.6	20.4	10	33	7	16	0	0
Fort Niagara	66.96	74.77	79.48	70.37	72.90	95	54	22.1	18.9	8	26	10	26	14	30
Alleghany Arsenal	64.29	72.80	80.83	69.61	71.88	93	51	21.1	20.9	19	32	12	24	3	3
Carlisle Barracks	64.16	73.51	81.48	71.30	72.61	95	48	22.4	24.6	4	14	2	7	25	65
Fort Mifflin	64.83	77.77	84.77	70.12	74.37	98	52	23.6	22.8	0	0	15	48	1	2
Fort McHenry	70.25	74.35	79.51	76.48	75.15	90	60	14.9	15.1	11	23	11	32	8	13
Fort Washington	69.25	80.06	89.25	73.48	78.01	100	56	22.0	22.0	12	26	12	15	6	7
Fort Monroe	72.30	76.00	82.77	76.77	76.96	92	63	15.0	14.0	0	0	22	53	1	2
Fort Moultrie	75.87	83.51	84.29	79.74	80.85	92	66	11.1	14.9	9	22	24	77	14	33
New Smyrna	72.58	82.93	81.74	77.16	78.60	85	68	6.4	10.6	0	0	0	0	47	128
Fort Pierce	83.70	87.32	86.19	83.70	85.23	95	74	9.8	11.2	0	0	4	7	16	32
Key West Barracks	81.16	84.26	86.77	83.55	83.93	89	79	5.1	4.9	2	3	7	21	48	15
Fort Myers	81.22	84.25	88.00	84.25	84.43	91	79	6.6	5.4	14	28	13	23	20	26
Fort Brooke	79.29	82.67	86.35	81.55	82.47	92	76	9.5	6.5	0	0	10	24	40	98
Fort Meade	72.70	81.61	83.70	77.03	78.76	92	69	13.2	9.8	2	2	13	16	40	64
Barrancas Barracks	75.93	83.00	86.20	80.82	81.49	90	68	8.5	13.5	5	8	13	32	0	0
Mount Vernon Arsenal	74.67	82.70	86.50	77.90	80.44	94	67	13.6	13.4	5	6	34	40	11	14
East Pascagoula	78.43	85.98	89.51	83.32	84.31	96	74	11.7	10.3	32	54	8	13	3	6
Baton Rouge Barracks	73.87	82.83	87.06	75.41	79.79	93	67	13.2	12.8	10	11	16	20	24	31
Fort Towson	71.60	82.00	91.20	80.90	81.40	97	67	15.6	14.4	17	24	18	23	30	49
Fort Washita	72.45	81.48	91.29	80.80	81.50	98	63	16.5	18.5	5	13	6	19	13	34
Fort Smith	72.61	77.41	90.45	81.83	80.57	101	62	20.4	18.6	3	7	11	22	19	31
Fort Gibson	72.86	82.67	93.38	80.51	82.36	102	62	19.6	20.4	9	9	6	8	10	18
Jefferson Barracks	70.00	77.74	84.22	76.30	77.07	95	56	17.9	21.1	0	0	1	2	9	13
St. Louis Arsenal	67.71	78.30	87.26	71.80	76.27	100	52	23.7	24.3	14	30	4	9	9	13
Newport Barracks	67.61	73.64	82.35	74.12	74.43	92	54	17.6	20.4	10	32	8	16	2	4
Fort Mackinac	59.80	68.32	70.64	61.48	65.06	80	46	14.9	19.1	16	50	1	3	1	1
Fort Brady	54.48	70.29	70.40	57.40	63.14	86	37	22.9	26.1	4	13	6	17	10	20
Fort Ripley	56.67	68.25	76.87	63.58	66.34	90	42	23.7	24.3	12	28	11	20	6	14
Fort Snelling	63.06	74.83	78.64	68.55	71.27	90	43	18.7	28.3	3	4	9	25	9	19
Fort Ridgely	61.93	69.54	78.58	66.58	69.16	92	46	22.8	23.2	16	53	10	19	3	5
Fort Leavenworth	67.70	76.41	84.09	74.64	75.71	94	49	18.3	26.7	1	2	13	18	5	12
Fort Kearney	63.16	73.93	84.51	71.00	73.15	95	37	21.8	37.2	7	17	0	0	20	38
Fort Laramie	64.12	70.77	83.41	74.25	73.14	94	55	20.8	18.2	4	7	11	24	9	26
Fort Atkinson	75.40	83.07	93.41	87.21	84.77	102	62	17.2	22.8	2	2	2	4	1	1
Fort Arbuckle	72.45	83.06	92.64	79.09	81.81	101	62	19.2	19.8	4	4	3	3	2	2
Fort Worth	72.03	81.87	91.48	81.05	81.61	98	67	16.4	14.6	7	11	12	34	7	16
Fort Belknap	74.84	87.70	95.75	80.07	84.59	103	68	18.4	16.6	2	2	1	1	5	6

MONTH OF AUGUST, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	12	26	41	21	54	0	0	24	33	0.96	3.03	4.87	0.87	2.43	14	17	13	0	4.90	
16	48	11	40	21	61	0	0	26	38	2.61	4.41	4.22	4.83	4.02	15	16	13	0	3.58	
9	20	12	31	24	43	15	33	20	31	3.58	4.03	4.32	3.51	3.86	13	18	12	0	5.18	
32	87	1	2	18	44	17	53	15	37	5.22	5.45	5.48	4.64	5.20	19	12	10	0	4.70	
2	8	40	119	4	15	11	31	0	0	4.45	4.42	4.42	5.13	4.61	16	15	11	0	5.34	
20	38	3	3	40	60	1	2	27	35	3.70	4.00	4.80	4.80	4.32	16	15	13	0	10.04?	
15	26	2	2	33	52	4	4	27	41	5.70	5.67	5.09	4.83	5.32	19	12	11	0	5.23	
17	33	11	35	24	63	13	31	18	42	6.06	6.58	6.84	6.19	6.42	24	7	11	0	5.50	
14	40	45	118	8	19	4	9	6	28	5.16	6.12	5.90	6.16	5.84	21	10	11	0	7.87	
16	58	39	113	21	55	12	40	11	36	5.87	7.45	7.22	5.00	6.38	22	9	10	0	3.05	
12	23	33	71	11	18	25	75	11	30	6.00	6.70	7.29	6.35	6.58	24	7	9	0	1.56	
2	5	9	23	16	35	8	20	10	20	1.58	5.99	5.09	6.09	4.69	18	13	12	0	6.56	
4	14	10	17	6	23	55	92	7	21	7.55	7.88	6.90	7.03	7.34	23	8	9	0	2.63	
25	55	0	0	42	87	3	11	24	73	6.29	6.67	7.19	6.29	6.61	24	7	8	0	4.42	
15	40	6	15	14	33	31	55	11	33	5.29	6.06	5.87	5.54	5.69	22	9	8	0	4.70	
7	14	31	41	18	27	10	20	10	23	4.45	5.16	4.74	5.38	4.93	19	12	11	0	5.30	
17	31	6	7	50	123	4	8	10	21	6.38	6.30	6.51	7.26	6.61	24	7	9	0	1.93	
15	33	19	43	28	88	8	12	4	6	6.48	5.29	5.32	7.00	6.02	23	8	9	0	2.20	
16	35	12	13	13	24	16	23	2	5	5.45	6.80	5.80	6.70	6.19	24	7	13	0	4.47	
34	71	35	57	1	1	31	31	0	0	6.93	6.86	6.96	6.64	6.85	28	3	6	0	13.50	Temp. in excess.
30	91	14	33	5	15	9	34	8	25	5.06	4.42	4.71	6.55	5.19	23	8	8	0	5.02	
11	18	15	31	9	25	13	31	2	7	6.03	5.09	3.93	3.38	4.61	17	14	20	0	10.38	
28	75	27	64	5	19	8	23	0	0	7.25	6.51	6.07	4.38	6.05	26	5	14	0	4.67	
30	41	15	20	9	11	11	14	0	0	4.95	6.64	2.35	4.80	4.68	18	13	19	0	3.39	
19	51	3	9	19	68	2	5	53	82	1.41	1.20	0.68	3.51	1.70	12	17	7	0	2.95	Scale of clearness too
26	32	9	15	3	4	15	22	14	17	6.29	7.42	6.30	7.30	6.83	25	6	8	0	8.95	[low
18	42	15	36	13	31	10	20	13	23	1.54	1.29	0.96	2.51	1.58	22	9	6	0	3.61	Scale of clearness too
15	18	25	30	4	4	21	21	5	6	6.29	6.48	4.32	7.00	6.02	24	7	12	0	4.93	[low.
14	24	31	63	1	2	0	0	2	3	4.10	4.90	5.60	7.30	5.47	18	13	7	0	0.49	
9	26	74	185	20	49	5	11	0	0	4.93	4.74	4.22	7.51	5.35	17	14	3	0	0.98	
10	14	21	33	13	19	6	10	4	7	6.29	6.51	5.77	8.54	6.78	24	7	7	0	2.58	
15	17	37	54	2	2	1	4	2	2	6.58	6.16	4.87	7.51	6.28	23	8	8	0	4.72	
2	9	55	79	8	14	46	66	2	3	2.16	3.87	5.03	5.93	4.25	15	16	6	0	7.08	
5	5	4	7	19	29	12	25	5	6	7.90	8.00	6.26	1.87	6.01	17	14	7	0	4.95	
21	30	58	84	12	28	0	0	8	25	5.42	5.61	5.03	7.90	6.02	23	8	7	0	2.20	
18	46	12	26	11	30	29	63	20	51	5.32	5.48	5.96	6.29	5.76	24	7	11	0	7.81?	
8	19	14	31	12	26	20	48	12	41	4.12	5.02	5.14	6.00	5.07	20	11	8	0	3.19	
26	64	22	62	11	38	19	57	5	13	5.51	5.70	5.64	6.45	5.82	23	8	5	0	2.64	
27	49	20	44	20	70	5	16	18	34	4.87	5.90	5.90	7.54	6.05	23	8	8	0	2.57	
33	64	21	51	9	39	5	20	24	63	3.87	4.22	4.51	4.45	4.26	14	17	14	0	4.90	
30	47	10	19	42	62	4	4	7	12	4.29	5.32	5.58	5.67	5.21	20	11	7	0	5.01	
5	9	66	150	0	0	1	1	3	4	5.35	6.12	7.25	7.54	6.57	23	8	4	0	2.21	
6	16	1	6	6	18	1	2	17	39	5.54	6.45	6.16	6.25	6.10	25	6	3	0	0.55	
24	79	9	12	18	28	5	11	14	40	....	....	....	....	....	25	2	1	0	0.80	Last 27 days.
12	14	41	54	42	47	5	6	2	2	8.70	8.96	9.87	9.64	9.29	30	1	5	0	1.30	
39	122	31	112	5	16	7	18	14	27	5.80	5.58	5.60	8.50	6.37	22	9	3	0	0.60	
13	14	20	22	9	10	7	8	1	2	7.19	8.09	6.90	9.45	7.91	26	5	2	0	0.12	

MONTH OF AUGUST, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Phantom Hill	71.70	83.90	95.06	82.48	83.29	100	68	16.7	15.3	0	0	2	9	17	47
Fort Chadbourne	65.94	74.09	85.22	65.51	75.08	96	62	20.9	13.1	1	3	0	0	2	7
Fort Graham	73.58	88.32	94.58	81.63	84.53	103	68	18.5	16.5	6	14	20	39	12	25
Fort Croghan	73.12	78.64	87.41	77.62	79.22	98	71	13.8	13.2	0	0	0	0	3	9
Fort McKavett	67.13	85.06	90.71	72.16	78.76	102	63	23.2	15.8	2	4	3	4	4	4
Fort Mason	74.00	78.84	88.42	81.16	80.60	93	72	12.4	8.6	1	4	3	10	5	11
Fort Terrett	65.48	79.00	89.93	74.00	77.10	98	60	20.9	17.1	0	0	2	2	20	22
Fort Merrill	73.26	88.14	93.50	80.70	83.90	100	71	16.1	12.9	5	6	8	16	17	38
Fort Ewell	74.67	89.12	92.48	81.61	84.47	104	71	19.5	13.5	2	2	2	2	4	5
Fort Brown	76.25	85.25	88.70	80.83	82.76	94	74	11.2	8.8	1	2	5	12	17	41
Ringgold Barracks	76.45	83.90	93.83	83.80	84.50	102	73	17.5	11.5	0	0	1	1	5	16
Fort McIntosh	75.13	88.45	96.06	83.26	85.72	107	72	21.3	13.7	0	0	13	19	1	1
Fort Inge	70.93	84.58	90.29	76.93	80.68	95	67	14.3	13.7	0	0	8	8	80	113
Fort Duncan	72.67	82.70	91.96	79.83	81.79	98	67	16.2	14.8	0	0	0	0	28	79
Fort Clarke	72.70	79.93	86.93	75.41	78.74	92	68	13.3	10.7	2	3	0	0	3	7
Fort Fillmore	72.38	81.00	92.38	79.80	81.39	100	66	28.6	15.4	3	8	1	2	8	15
Fort Webster	58.12	82.61	83.09	64.51	72.08	94	50	21.9	22.1	17	26	3	3	4	6
Fort Conrad	64.93	77.61	87.00	74.16	75.92	98	61	22.1	14.9	11	28	11	32	10	14
Albuquerque	......	......	......	......	......	....	....	......	......	0	0	1	1	19	19
Santa Fē	57.48	70.16	76.41	62.77	66.71	87	53	20.3	13.7	9	17	10	19	16	31
Fort Union*	50.35	75.70	75.61	55.51	64.29	87	46	22.7	18.3	24	24	15	25	10	12
Fort Massachusetts	47.51	68.16	75.00	55.67	61.58	86	39	24.4	22.6	55	167	1	3	9	25
Fort Defiance	58.45	73.12	79.41	65.00	69.00	91	46	22.0	23.0	12	19	11	20	12	32
Fort Yuma	81.32	95.38	102.90	89.03	92.16	110	76	17.8	16.2	22	27	6	6	5	5
San Diego	65.74	75.19	81.58	69.03	72.88	90	56	17.1	16.9	0	0	5	5	17	19
Rancho de Jurupa	64.87	74.03	86.29	72.87	74.51	96	56	21.5	18.5	0	0	0	0	0	0
Fort Miller	64.96	83.35	100.06	81.87	82.56	113	54	30.3	28.7	0	0	1	1	20	26
San Francisco	53.35	57.48	62.80	53.96	56.90	66	51	9.1	5.9	0	0	0	0	0	0
Benicia Barracks	55.52	62.06	78.03	60.32	63.98	90	53	26.0	11.0	0	0	0	0	0	0
Fort Reading	62.51	80.41	94.83	77.29	78.76	104	55	25.2	23.8	7	13	0	0	0	0
Columbia Barracks	56.71	62.48	73.93	63.03	64.04	84	43	20.0	21.0	42	103	3	6	25	62
Dalles of the Columbia	56.51	71.09	84.12	69.09	70.21	97	47	26.8	23.2	6	15	0	0	1	2
Fort Steilacoom	50.38	62.48	76.58	59.00	62.11	93	43	30.9	19.1	3	10	0	0	0	0

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* The lower temperatures at 3 p. m. and 9 p. m. for this month, at *Fort Union*, are due to the frequency of thunder storms in this part of the day, reducing the temperature much below that of clear weather at the same hours at such altitudes.

MONTH OF AUGUST, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S.E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
31	94	55	187	16	65	1	2	2	6	3.35	6.51	6.90	7.45	6.05	24	7	3	0	0.03 ?	
0	0	115	116	0	0	2	4	0	0	7.74	9.03	8.68	9.45	8.72	28	3	1	0	0.85	Temp. inaccurato.
32	60	19	40	18	39	5	8	3	6	6.61	6.25	5.90	8.93	6.92	26	5	3	0	0.32	
81	196	26	49	13	27	0	0	1	2	3.70	7.00	5.77	7.19	5.91	25	6	3	0	0.20	
70	117	34	57	4	6	0	0	0	0	7.35	7.06	6.13	7.77	7.08	25	6	2	0	1.65	
22	42	59	122	16	39	1	2	2	5	7.03	7.55	6.47	9.13	7.54	26	5	3	0	1.69	
96	155	0	0	0	0	0	0	0	0	6.12	7.29	7.16	5.74	6.58	26	5	4	0	1.83	
41	90	18	34	4	6	1	1	1	1	4.10	4.30	3.29	7.13	4.70	21	10	7	0	5.75	
72	150	0	0	0	0	0	0	1	2	8.35	8.32	6.54	8.87	8.02	26	5	7	0	1.65	
51	121	11	20	35	75	1	2	1	2	4.87	4.35	5.06	4.70	4.74	18	13	4	0	3.10	
84	197	34	63	0	0	0	0	0	0	4.77	4.25	2.87	6.80	4.67	14	17	11	0	4.34	
110	186	0	0	0	0	0	0	0	0	6.00	5.58	4.81	7.52	5.98	22	9	10	0	2.22	
29	52	0	0	0	0	0	0	4	7	5.12	7.03	7.93	8.90	7.24	29	2	5	0	1.59	
27	80	0	0	11	26	1	1	3	13	7.87	7.80	8.16	9.12	8.24	28	3	6	0	2.15	
90	209	14	33	3	3	1	1	0	0	4.48	5.06	5.77	7.93	5.81	21	10	5	0	2.75	
12	29	7	12	35	76	3	3	0	0	8.64	8.80	8.35	8.22	8.50	20	11	9	0	1.83	Clearness inaccurate.
4	6	10	20	21	29	28	33	29	33	8.90	9.45	7.51	8.19	8.51	27	4	6	0	1.21	
12	22	15	36	29	68	12	26	6	10	7.22	7.61	4.74	5.35	6.23	26	5	9	0	1.20	
5	6	13	13	0	0	7	8	0	0	6.42	6.35	6.09	5.19	6.01	25	6	5	0	3.80	Inaccurate.
8	16	12	28	7	14	14	33	15	33	5.90	6.70	6.06	5.00	5.91	22	9	12	0	5.42	
2	4	10	12	18	31	24	36	11	20	6.29	6.19	5.38	4.51	5.59	19	12	14	0	3.42	
3	9	20	53	5	13	9	30	21	74	6.77	6.96	4.96	5.90	6.15	23	8	8	0	1.48	
6	10	0	0	8	13	20	34	22	32	8.83	9.38	8.22	8.06	8.62	29	2	8	0	4.65	
19	51	29	94	11	26	14	26	7	9	6.51	6.60	5.93	7.48	6.63	23	8	4	0	0.69	
5	8	11	13	48	99	31	40	1	2	0.74	7.32	8.77	7.19	6.00	25	6	2	0	0.21	
0	0	0	0	106	210	12	12	0	0	6.41	7.00	7.70	8.03	7.28	29	2	2	0	0.18	
7	7	5	7	17	26	41	64	11	18	8.03	7.90	7.67	8.87	8.12	24	7	0	0	0.00	
0	0	0	0	77	272	41	180	1	3	1.06	2.22	4.54	3.19	2.75	10	21	0	0	0.00	
1	1	0	0	5	18	125	506	0	0	4.67	6.51	8.90	8.74	7.21	24	7	0	0	0.00	
0	0	24	27	2	2	1	1	4	8	8.25	8.61	8.19	8.12	8.29	28	3	2	0	0.24	
0	0	0	0	0	0	27	58	9	18	3.80	4.58	7.93	7.19	5.88	20	11	3	0	0.39	
2	2	10	10	58	93	36	79	9	27	7.87	8.03	8.58	8.41	8.22	29	2	3	0	0.61	
5	10	22	61	43	149	21	63	20	61	2.83	4.54	7.16	8.06	5.65	21	10	3	0	1.19	

MONTH OF SEPTEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Constitution	55.23	60.56	65.83	56.23	59.46	88	42	28.5	17.5	11	26	7	24	9	20
Fort Independence	58.63	64.17	69.10	64.03	63.98	79	39	15.0	25.0	10	41	20	71	8	19
Fort Adams	61.40	65.23	68.06	63.93	64.65	80	42	15.4	22.6	57	208	5	22	6	25
Fort Trumbull	60.60	69.70	70.40	63.90	66.15	83	39	16.9	27.1	0	0	27	56	2	2
Fort Hamilton	63.30	66.73	74.10	66.50	67.66	85	45	17.3	22.7	9	16	7	7	1	1
Fort Columbus	60.87	66.83	73.63	64.33	66.41	88	41	21.6	25.4	8	27	21	58	5	11
West Point	59.23	65.63	70.60	63.60	64.76	86	40	21.2	24.8	49	165	0	0	0	0
Watervliet Arsenal	56.53	63.80	65.63	59.56	61.38	79	38	17.6	23.4	23	54	0	0	0	0
Fort Niagara	58.00	64.13	68.00	61.23	62.84	90	38	27.2	24.8	10	34	18	37	12	21
Alleghany Arsenal	57.60	66.40	73.03	63.03	65.02	89	40	24.0	25.0	18	28	15	18	9	11
Carlisle Barracks	57.37	66.97	74.80	63.73	65.72	90	34	24.3	31.7	14	34	0	0	30	71
Fort Mifflin	56.03	69.20	77.13	65.90	67.06	98	34	30.9	33.1	0	0	14	17	0	0
Fort McHenry	64.90	68.53	75.90	70.00	69.83	86	48	16.2	21.8	26	55	8	15	9	15
Fort Washington	61.76	71.53	79.60	66.63	69.88	96	42	26.1	27.9	10	17	9	17	4	5
Fort Monroe	67.83	70.77	77.20	71.60	71.85	86	52	14.2	19.8	6	11	24	62	4	8
Fort Moultrie	72.36	79.06	81.30	75.50	77.06	92	57	14.9	20.1	24	55	25	78	14	27
New Smyrna	74.90	80.76	81.16	77.56	78.59	90	64	11.4	14.6	2	3	34	125	22	47
Fort Pierce	79.00	83.23	86.70	77.50	81.61	95	71	13.4	10.6	15	23	5	12	8	19
Key West Barracks	79.90	82.80	85.16	82.40	82.56	87	77	4.4	5.6	21	88	22	79	20	57
Fort Myers	78.66	81.10	84.20	80.53	81.12	90	73	8.9	8.1	7	15	19	37	43	95
Fort Brooke	76.77	80.07	83.50	78.76	79.78	90	70	10.2	9.8	6	10	19	33	35	53
Fort Meade	73.80	82.10	86.06	79.00	80.29	92	61	11.7	19.3	7	14	17	26	33	53
Barrancas Barracks	72.33	78.00	82.06	74.93	76.83	88	54	11.2	22.8	16	21	13	25	8	21
Mount Vernon Arsenal	69.16	76.90	82.73	74.00	75.70	94	54	18.3	21.7	10	23	39	54	9	12
East Pascagoula	74.60	80.10	87.26	78.43	80.10	93	56	12.9	24.1	40	83	8	17	3	7
Fort Towson	63.90	72.20	84.50	72.00	73.40	96	45	22.6	28.4	26	33	17	25	41	74
Fort Washita	65.20	75.30	83.36	72.46	74.08	97	49	22.9	25.1	25	70	12	34	17	49
Fort Smith	62.43	69.70	81.70	72.30	71.53	95	47	23.5	24.5	0	0	12	18	30	45
Fort Gibson	64.56	74.60	83.33	70.76	73.31	95	43	21.7	30.3	15	16	8	10	3	3
Jefferson Barracks	63.70	70.86	78.80	70.00	70.84	88	41	17.2	29.8	0	0	0	0	0	0
St. Louis Arsenal	61.63	69.80	79.16	65.47	69.01	91	42	22.0	27.0	12	22	4	13	22	38
Newport Barracks	62.56	66.12	74.50	68.25	67.86	86	47	18.1	20.9	17	33	19	52	5	5
Fort Mackinac	52.00	58.70	63.00	55.20	57.22	80	38	22.8	19.2	10	16	0	0	10	33
Fort Brady	47.87	57.33	60.80	50.33	54.08	80	31	25.9	23.1	15	55	5	13	20	48
Fort Ripley	48.40	58.50	66.06	53.16	56.53	90	32	33.5	24.5	6	19	13	41	0	0
Fort Snelling	53.16	60.73	67.40	58.86	60.04	90	41	30.0	19.0	12	29	6	10	4	7
Fort Ridgely	59.23	62.20	66.73	59.56	61.93	92	40	30.1	21.9	17	46	13	24	14	40
Fort Leavenworth	59.90	68.60	77.53	66.93	68.24	91	44	22.8	24.2	1	2	19	28	1	1
Fort Kearney	52.43	62.83	76.26	60.43	63.00	93	36	30.0	27.0	13	25	8	24	11	18
Fort Laramie	52.73	58.43	71.83	61.46	61.11	91	36	29.9	25.1	4	7	12	24	9	30
Fort Atkinson	69.90	73.40	78.20	73.30	73.70	86	61	12.3	12.7	0	0	1	2	1	2
Fort Arbuckle	66.06	77.03	84.80	70.16	74.51	97	48	22.5	26.5	18	21	2	2	6	6
Fort Belknap	68.26	84.53	90.30	74.07	79.29	101	58	26.7	21.3	6	9	11	17	10	16
Phantom Hill	65.70	77.73	89.23	74.60	76.82	98	52	21.2	24.8	8	21	24	39	4	8
Fort Chadbourne	61.36	69.80	80.10	70.66	70.49	89	46	18.5	24.5	0	0	7	7	3	3
Fort Mason	70.47	74.80	83.53	77.97	76.69	91	59	14.3	17.7	11	28	13	26	9	23
Fort Terrett	61.86	74.76	86.86	70.60	73.52	93	44	19.5	29.5	0	0	0	0	50	68

MONTH OF SEPTEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am' in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	56	11	21	18	37	17	42	31	64	2.80	3.70	3.90	3.93	3.58	12	18	7	0	3.21	
13	43	1	2	20	53	21	66	17	58	5.20	6.00	7.07	5.53	5.95	21	9	4	0	3.90	
0	0	45	156	2	9	6	19	0	0	6.30	6.20	5.63	5.96	6.02	22	8	6	0	3.25	
14	22	0	0	39	74	1	1	35	57	3.90	4.60	4.30	4.33	4.28	14	16	9	0	7.48?	
16	23	2	2	33	50	1	4	51	85	4.76	5.50	4.63	6.23	5.03	18	12	6	0	3.75	
10	23	4	13	36	114	6	28	22	60	6.43	7.07	7.13	7.37	7.00	22	8	7	0	5.49	
4	12	47	102	5	6	6	12	3	12	4.76	5.80	5.30	6.76	5.65	21	9	7	0	3.95	
15	39	24	85	17	44	13	46	23	66	2.79	5.72	5.50	3.33	4.34	17	13	11	0	7.56?	Inaccurate.
7	10	10	21	3	9	30	63	13	49	4.56	4.90	5.73	5.76	5.24	17	13	7	0	3.55	
4	6	8	18	21	65	7	23	3	6	2.03	4.80	4.30	6.86	4.50	16	14	11	0	2.34	
4	11	11	22	3	9	47	112	12	33	6.87	7.27	6.87	7.00	7.00	23	7	6	0	3.01	
36	66	0	0	23	47	0	0	41	64	....	....	....	....	....	22	8	7	0	1.80	Winds inaccurate
4	7	9	20	23	55	26	48	9	21	4.40	5.03	5.33	4.96	4.93	16	14	5	0	2.40	
5	6	28	45	14	29	9	22	27	56	4.93	5.56	4.56	5.46	5.13	18	12	9	0	4.57	
27	66	5	13	27	64	5	11	14	39	5.53	6.33	5.60	6.90	6.09	19	11	9	0	1.11?	
17	57	10	29	14	34	11	20	3	6	6.46	5.56	4.80	6.90	5.93	18	12	8	0	8.10	
29	72	7	10	7	9	11	12	1	3	4.33	6.16	5.66	6.16	5.58	21	9	9	0	3.15	
11	24	51	78	1	2	26	28	1	1	6.76	6.43	5.96	7.16	6.58	24	6	6	0	17.50?	Inaccurate.
35	110	16	54	3	10	0	0	2	4	4.56	4.66	4.90	4.76	4.72	20	10	11	0	4.39	
6	13	3	5	1	2	10	25	3	6	0.53	4.40	3.80	2.36	2.77	10	20	17	0	22.19?	
12	22	23	49	5	12	16	26	1	2	7.96	6.47	6.00	5.07	6.37	23	7	11	0	4.36	
14	18	8	8	20	25	13	14	4	5	4.66	5.63	3.96	5.93	5.05	18	12	12	0	2.12	
23	93	1	5	14	40	4	11	38	54	2.90	2.80	2.80	4.00	3.12	14	16	12	0	12.25	
30	44	4	4	4	8	6	9	14	26	5.63	5.76	5.96	9.63	6.74	20	10	11	0	11.09	
28	72	16	41	11	37	4	9	5	10	2.86	2.36	2.50	4.06	2.95	12	18	8	0	6.83	
6	9	11	23	1	3	2	2	4	5	5.50	5.50	5.30	7.10	5.85	18	12	6	0	6.11	
17	50	34	96	8	30	3	6	1	3	5.36	5.83	4.83	6.36	5.34	19	11	5	0	4.28	
8	14	5	7	12	20	14	22	3	5	6.00	6.16	6.46	8.33	6.74	21	9	5	0	3.20	
6	8	38	77	0	0	1	1	1	1	6.76	6.06	5.96	7.30	6.52	18	12	4	0	1.35	
4	7	60	104	3	5	37	54	6	19	3.43	4.80	5.46	5.73	4.86	21	9	5	0	4.20	
4	12	15	23	20	55	7	11	4	8	....	....	....	....	....	22	8	4	0	3.60	Weather obs. inac
8	13	14	21	23	59	12	30	4	8	1.56	4.20	4.83	7.30	4.47	15	15	10	0	8.10	" "
15	40	20	33	17	50	31	70	8	23	3.56	3.43	4.76	4.76	4.13	14	16	7	0	5.01?	
18	36	8	16	8	21	11	35	6	13	3.83	4.03	4.70	3.97	4.13	15	15	12	0	2.61	
28	78	25	44	20	50	9	21	10	32	4.70	4.16	5.13	5.51	4.87	16	14	11	0	3.31	
31	69	20	46	17	34	5	14	16	39	3.86	5.36	5.40	6.06	5.17	17	13	9	0	2.14	
22	70	10	31	11	45	6	20	26	72	3.16	3.60	3.73	4.50	3.75	13	17	12	0	3.23	
27	34	15	44	14	23	2	3	25	35	4.83	5.63	6.13	5.63	5.56	20	10	6	0	1.47	
4	8	40	100	0	0	3	4	13	40	5.56	6.03	7.03	6.46	6.27	21	9	6	0	0.94	
0	0	0	0	7	27	0	0	14	39	4.10	4.73	5.73	5.00	4.89	17	13	7	0	2.80	
28	52	12	19	14	20	4	9	4	11	....	....	....	....	....	20	0	..	0	....	First 20 days.
7	8	30	33	32	60	0	0	16	17	8.33	8.93	8.63	9.20	8.77	27	3	3	0	3.16	
33	86	15	32	10	25	2	5	2	2	7.83	7.73	7.16	9.06	7.94	27	3	3	0	1.77	
35	66	34	70	10	16	3	6	2	2	6.90	6.96	6.83	8.40	7.27	25	5	3	0	0.28	
21	32	68	78	4	8	0	0	0	0	7.10	7.06	7.86	8.06	7.52	24	6	4	0	1.76	
21	45	23	64	12	40	2	5	6	17	6.07	5.80	6.07	8.30	6.56	23	7	5	0	1.14	
67	108	2	2	0	0	0	0	1	2	5.53	6.80	7.43	5.40	6.29	26	4	3	0	0.10	

MONTH OF SEPTEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Merrill	74.30	82.21	89.14	73.00	79.64	98	57	18.4	22.6	7	12	29	52	4	4
Fort Ewell	71.06	80.86	91.53	79.69	80.79	98	57	17.2	23.8	7	10	15	29	14	17
Fort Brown	73.26	82.20	83.23	76.96	78.91	89	62	10.1	16.9	6	13	26	57	17	32
Ringgold Barracks	72.56	80.06	89.86	80.60	80.62	96	58	15.4	22.6	4	12	34	66	11	20
Fort McIntosh	71.03	85.27	94.17	79.10	82.39	102	56	19.6	26.4	2	3	37	62	0	0
Fort Inge	66.96	80.40	88.43	74.33	77.53	95	49	17.5	28.5	3	5	38	61	32	52
Fort Duncan	72.93	81.56	90.16	78.03	80.67	98	54	17.3	26.7	6	16	4	13	66	124
Fort Clarke	68.76	78.13	85.26	73.66	76.45	91	50	14.5	26.5	8	19	10	23	17	37
Fort Fillmore	66.73	77.96	89.70	75.73	77.53	100	56	22.5	21.5	0	0	2	8	6	9
Fort Webster	51.70	72.36	73.33	61.33	64.68	79	43	14.3	21.7	18	27	4	7	2	5
Fort Conrad	56.86	72.93	85.33	70.30	71.36	95	48	23.6	23.4	5	8	20	68	10	25
Albuquerque	69.47	70.90	72.30	70.77	70.86	77	65	6.1	5.9	0	0	2	11	8	12
Santa Fé	54.10	66.46	72.46	57.93	62.74	82	46	19.3	16.7	14	20	23	54	10	16
Fort Union	47.46	60.40	70.60	55.06	58.38	79	37	20.6	21.4	36	45	17	27	0	0
Fort Massachusetts	42.23	56.73	66.50	49.20	53.67	80	26	26.3	27.7	28	86	1	3	2	6
Fort Defiance	48.26	65.53	76.06	55.70	61.39	87	38	25.6	23.4	5	10	8	11	1	2
Fort Yuma	77.20	91.13	100.80	88.20	89.33	110	69	20.7	20.3	32	50	16	25	2	4
San Diego	61.06	75.03	82.06	64.80	70.74	99	53	28.3	17.7	0	0	5	5	23	25
Rancho de Jurupa	62.63	72.80	87.33	73.53	74.07	94	52	19.9	22.1	0	0	27	30	6	6
Fort Miller	59.43	75.13	90.83	74.53	75.00	102	50	27.0	25.0	1	1	2	3	31	33
San Francisco	54.80	50.72	64.80	56.54	58.96	70	51	11.0	8.0	0	0	1	3	0	0
Benicia Barracks	52.26	62.03	77.56	61.63	64.37	90	52	25.6	12.4	0	0	0	0	0	0
Fort Reading	56.73	71.80	85.63	68.63	70.70	96	51	25.3	19.7	22	33	0	0	2	2
Columbia Barracks	51.03	59.66	71.26	59.16	60.28	84	42	23.7	18.3	10	20	0	0	38	91
Dalles of the Columbia	52.73	62.90	77.10	62.10	63.71	88	46	24.3	17.7	5	7	3	3	2	2
Fort Steilacoom	46.30	61.23	73.13	53.63	58.56	83	38	24.4	20.6	12	44	2	5	0	0

MONTH OF SEPTEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
18	39	7	12	8	21	8	8	5	17	4.18	5.11	4.16	6.27	4.91	22	8	8	0	5.86	
29	71	3	6	0	0	1	3	2	4	6.30	6.86	5.93	7.86	6.74	24	6	6	0	5.25	
17	38	3	5	23	50	6	14	20	41	4.96	4.13	4.16	5.76	4.75	15	15	10	0	8.00	
21	37	33	69	1	1	2	2	1	1	4.86	3.96	2.80	6.53	4.54	15	15	11	0	2.32	
64	142	0	0	0	0	0	0	15	26	5.73	6.03	4.80	7.07	5.93	22	8	7	0	4.24	
37	80	0	0	0	0	0	0	0	0	6.13	6.40	6.63	8.20	6.84	23	7	4	0	1.20	
14	30	0	0	21	63	1	3	3	7	7.50	6.23	6.76	7.56	6.51	22	8	3	0	4.05	
42	92	30	70	0	0	7	8	0	0	4.60	4.76	8.00	7.00	5.34	18	12	3	0	0.13	
8	18	16	40	24	58	2	7	2	8	8.70	8.83	8.66	8.66	8.74	25	5	4	0	1.21	
2	3	3	3	11	19	35	45	37	47	8.50	8.96	8.53	9.10	8.77	28	2	3	0	1.26	
5	13	15	35	15	43	33	62	11	13	6.43	6.66	5.46	6.33	6.22	22	8	6	0	0.53	
5	5	22	24	0	0	10	14	3	5	5.97	5.97	5.83	4.77	5.64	23	7	3	0	0.07	Inaccurate.
4	7	6	8	5	6	15	30	13	26	5.90	7.23	6.90	5.93	6.49	24	6	9	0	2.68	
4	11	4	7	18	43	7	18	25	58	7.10	6.66	5.53	6.53	6.46	24	6	6	0	1.59	
9	26	42	137	4	10	8	22	18	58	6.66	6.56	6.33	7.00	6.64	26	4	4	1	1.25	
7	13	8	12	19	34	30	86	21	32	9.20	9.73	9.43	8.96	9.33	29	1	9	0	2.64	
20	53	16	43	12	25	6	10	10	18	7.03	6.90	7.10	8.36	7.35	28	2	3	0	0.13	
11	11	12	12	37	72	24	31	1	2	4.26	8.66	9.60	8.70	7.80	26	4	0	0	0.00	
0	0	0	0	76	155	7	7	4	10	7.46	7.90	8.26	8.70	8.05	29	1	0	0	0.00	
7	8	6	6	10	13	48	58	5	14	9.16	9.00	9.43	9.66	9.31	30	0	0	0	0.00	
1	3	2	6	53	160	40	49	4	13	2.24	3.28	6.48	3.96	3.99	10	15	2	0	0.23	Last 25 days.
0	0	1	1	7	24	109	416	0	0	4.76	6.16	8.63	8.06	6.90	24	6	1	0	0.00	
4	6	12	26	2	2	5	10	1	1	7.66	7.56	7.60	8.00	7.71	26	4	2	0	0.02	
0	0	0	0	2	4	57	126	2	4	2.66	3.46	4.26	5.46	3.96	13	17	5	0	2.00	
5	5	4	6	63	74	31	44	3	4	6.56	7.13	6.93	7.26	6.97	22	8	4	0	1.41	
8	17	33	86	20	57	5	14	11	30	2.43	3.50	5.33	5.93	4.30	15	15	5	0	4.99	

MONTH OF OCTOBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence.....	44.85	50.10	58.20	49.75	50.72	71	32	20.3	18.7	10	19	6	13	9	28
Fort Hamilton.........	48.45	51.32	59.35	52.41	52.86	70	39	17.1	13.9	4	6	0	0	0	0
Fort Columbus	46.93	52.19	58.45	50.48	52.01	76	35	24.0	17.0	10	30	21	60	0	0
West Point............	45.48	51.93	55.29	49.67	50.59	65	32	14.4	18.6	42	147	2	7	0	0
Watervliet Arsenal....	37.80	48.45	51.61	44.00	45.46	68	30	22.5	15.5	8	25	2	5	0	0
Fort Niagara..........	43.12	48.87	51.90	46.22	47.53	63	32	15.5	15.5	15	37	1	2	8	15
Alleghany Arsenal.....	40.83	47.61	58.90	46.51	48.46	75	31	26.5	17.5	10	16	11	13	4	6
Fort Mifflin..........	42.29	55.51	65.93	55.71	54.86	77	30	22.1	24.9	0	0	6	8	0	0
Fort McHenry.........	48.35	53.64	60.67	53.90	54.14	70	34	15.9	20.1	40	78	5	12	6	13
Fort Monroe	55.30	58.35	64.39	58.77	59.20	78	38	18.8	21.2	7	19	39	126	1	3
Fort Moultrie	59.87	66.45	71.51	64.96	65.70	81	38	15.3	27.7	51	185	23	72	5	8
New Smyrna..........	67.96	74.96	76.06	71.51	72.62	89	47	16.4	25.6	4	5	40	158	35	77
Fort Pierce............	71.61	74.93	77.90	73.74	74.54	85	66	10.5	8.5	45	74	12	34	8	17
Key West Barracks....	77.39	80.77	83.16	80.32	80.41	87	73	6.6	7.4	28	119	21	79	35	113
Fort Myers	74.64	76.29	81.90	77.77	77.65	89	62	11.4	15.6	0	0	25	82	27	58
Fort Brooke...........	71.93	75.22	80.19	74.87	75.55	86	56	10.4	19.6	10	23	28	76	36	51
Fort Meade...........	66.19	76.74	79.83	75.00	74.44	88	49	13.6	25.4	21	27	45	53	18	22
Mount Vernon Arsenal.	57.51	65.90	76.00	64.10	65.88	89	38	23.1	27.9	26	56	43	64	7	9
Baton Rouge Barracks..	57.64	66.00	75.77	63.87	65.82	84	40	18.2	25.8	13	34	23	36	28	45
Fort Towson..........	51.40	59.00	71.60	59.10	60.27	87	29	26.7	31.3	27	44	19	29	56	107
Fort Washita	53.09	61.93	69.64	59.45	60.78	87	30	26.2	30.8	19	52	4	13	28	91
Fort Smith............	51.67	55.80	68.93	58.74	58.79	84	33	25.2	28.8	3	4	8	17	45	75
Fort Gibson	51.38	59.93	70.00	57.90	59.80	87	28	27.2	31.8	13	13	7	13	5	6
Jefferson Barracks......	44.67	53.35	63.86	53.38	53.81	82	25	28.2	28.8	0	0	0	0	5	7
St. Louis Arsenal......	43.30	50.84	63.84	48.80	51.70	81	28	29.3	23.7	16	27	1	1	19	28
Newport Barracks......	45.93	49.22	58.22	52.03	51.35	72	37?	20.7	14.3	11	35	13	30	20	45
Fort Mackinac	37.90	45.96	49.93	43.16	44.24	64	24	19.8	20.2	13	22	0	0	0	0
Fort Brady............	34.69	42.12	47.40	38.15	40.59	66	15	25.4	25.6	21	72	4	9	7	18
Fort Ripley	31.61	40.58	54.00	39.61	41.45	75	4	33.5	37.5	13	32	11	36	0	0
Fort Snelling..........	34.48	47.25	56.00	44.67	45.60	73	8	27.4	37.6	8	17	4	7	2	2
Fort Ridgely	35.54	50.83	58.48	45.45	47.57	76	13	28.4	34.6	31	86	2	10	0	0
Fort Leavenworth......	41.77	51.74	65.51	54.45	53.39	78	22	24.6	31.4	0	0	9	11	2	3
Fort Kearney	36.16	48.74	64.54	46.32	48.94	83	12	34.1	36.9	5	13	4	14	7	11
Fort Laramie..........	39.38	47.35	62.32	49.64	49.67	75	20	25.3	29.7	15	44	3	6	0	0
Fort Arbuckle.........	52.67	61.96	69.40	59.06	60.77	90	30	29.2	30.8	29	33	25	27	8	10
Fort Belknap..........	54.96	68.32	74.96	62.93	65.29	95	32	29.7	33.3	16	45	24	66	6	15
Phantom Hill..........	53.64	64.34	73.25	60.83	63.02	93	37	30.0	26.0	3	8	21	46	15	47
Fort Chadbourne	44.93	54.32	66.60	53.00	54.71	80	26	25.3	28.7	4	5	40	51	4	4
Fort Mason	60.13	64.10	72.68	65.39	65.57	87	43	21.4	22.6	7	22	11	29	8	17
Fort Terrett	54.54	65.83	73.03	61.22	63.66	88	38	24.3	25.7	1	2	10	18	24	34
Fort Merrill...........	62.00	74.19	86.17	77.12	74.87	98	46	23.1	28.9	17	38	7	12	8	14
Fort Ewell............	62.06	71.22	83.64	69.03	71.49	96	40	24.5	31.5	13	33	6	10	17	34
Fort Brown	66.25	74.64	76.35	67.22	71.11	84	50	12.9	21.1	13	28	17	38	30	61
Ringgold Barracks.....	65.12	72.77	82.45	72.77	73.28	84	51	10.7	22.3	6	9	17	39	12	28
Fort McIntosh.........	61.45	75.61	84.29	70.35	72.92	95	44	22.1	28.9	1	1	30	40	5	7
Fort Inge..............	56.00	69.80	78.38	62.87	66.76	89	40	22.2	26.8	5	6	22	31	65	100
Fort Duncan..........	59.41	70.83	77.93	70.38	69.64	92	43	22.4	26.6	5	9	8	19	51	82

MONTH OF OCTOBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	7	7	15	14	41	19	61	7	17	5.75	5.85	6.00	6.20	5.92	13	7	6	0	2.74	Last 20 days
10	13	6	6	36	54	2	4	64	145	6.03	5.83	5.77	6.54	6.04	22	9	6	0	2.73	
11	43	3	18	26	76	18	72	21	87	7.29	7.38	7.22	6.90	7.20	19	12	5	0	3.90	Force of winds in excess.
1	2	35	106	3	6	2	7	32	99	5.90	6.29	5.25	6.26	6.10	20	11	7	1	3.85	
3	8	28	79	12	47	27	77	17	47	5.10	6.50	7.00	6.30	6.22	21	10	8	1	2.47	
3	6	15	28	17	29	45	117	16	58	3.90	5.16	4.09	5.35	4.62	17	14	6	1	1.31	
6	10	6	17	16	50	24	80	12	38	1.90	4.35	5.41	6.41	4.52	16	15	6	1	2.04	
20	43	0	0	45	77	0	0	52	85	....	....	....	....	....	17	14	6	0	2.84	
1	3	5	15	11	31	17	36	30	71	6.00	6.12	6.19	6.83	6.28	22	9	7	1	4.40	
4	9	5	11	30	79	7	19	20	45	5.55	5.71	5.48	5.88	5.66	17	14	7	0	0.80?	
5	14	9	29	17	43	7	21	5	8	5.51	5.00	4.90	5.54	5.24	18	13	10	0	4.05	
0	0	8	13	7	11	14	27	7	16	3.45	4.38	4.48	4.54	4.21	15	16	11	0	2.46	
21	46	29	39	2	3	4	8	0	0	6.58	6.58	7.06	7.16	6.85	22	9	5	0	10.00?	
16	48	8	20	3	7	6	17	2	8	6.13	5.74	5.97	7.29	6.28	24	7	6	0	1.69	
19	40	5	9	4	10	17	39	1	2	5.45	6.32	5.38	4.38	5.38	24	7	5	0	1.49	
14	35	10	23	12	29	1	1	4	9	6.60	6.10	5.22	5.16	5.77	22	9	4	0	1.70	
21	23	8	11	3	3	2	3	6	10	3.80	4.32	3.38	5.64	4.28	15	16	8	0	0.31	
25	32	1	1	1	3	4	11	17	39	6.06	7.10	6.20	8.00	6.84	21	10	5	0	8.44	
4	6	3	3	3	3	11	13	1	2	7.09	7.25	7.19	7.87	7.35	23	8	6	0	1.35	
9	20	5	8	0	0	2	4	3	3	4.60	5.30	4.90	5.90	5.18	17	14	6	0	3.40	
7	14	40	112	9	24	12	33	3	7	4.77	4.45	4.16	5.16	4.64	19	12	6	0	3.50	
5	8	4	7	6	14	20	30	6	11	6.16	5.83	5.64	6.61	6.06	21	10	3	0	0.73	
13	35	29	54	1	1	1	5	4	9	5.45	5.67	4.90	6.19	5.55	18	13	6	0	1.13	
4	19	49	85	4	8	46	112	2	10	3.19	5.09	5.67	6.90	5.21	20	11	3	0	1.10	
3	4	14	25	10	32	10	27	12	40	....	....	....	....	....	19	12	3	0	1.10	
5	8	24	33	20	44	6	18	11	34	1.80	4.80	5.77	7.03	4.85	17	14	7	0	2.50	Therm. protected.
6	15	22	61	10	32	35	91	24	73	4.06	4.64	4.09	4.70	4.37	15	16	8	3	1.73	
0	0	18	44	5	16	7	25	6	17	5.30	6.20	5.15	5.30	5.49	19	12	9	4	2.16	
10	29	31	62	22	56	8	29	16	58	6.45	6.64	6.87	7.09	6.76	23	8	2	2	0.95	
26	44	26	49	19	51	13	37	18	55	6.54	6.87	7.41	8.35	7.29	23	8	1	1	0.01	
11	22	24	60	11	20	11	41	33	108	2.87	3.12	3.45	7.00	4.11	15	16	2	1	0.60	
4	4	5	14	16	23	10	14	73	102	6.80	7.58	7.25	6.70	7.08	26	5	2	0	0.52	
2	4	27	54	12	27	13	25	15	42	4.41	5.67	5.67	6.87	5.65	23	8	1	2	0.26	
5	15	0	0	1	5	1	4	23	66	6.90	6.83	6.09	5.90	6.43	22	9	2	4	0.68	
23	29	18	26	3	5	4	7	3	5	7.54	7.32	7.16	7.54	7.39	24	7	5	0	3.32	
32	88	24	75	13	39	1	2	8	25	3.93	4.83	4.16	6.32	4.81	20	11	6	0	4.89	
13	31	39	129	22	51	9	24	2	2	6.03	6.58	6.19	7.45	6.56	23	8	6	0	2.01	
23	29	0	0	7	12	0	0	2	2	4.67	5.80	5.90	6.38	5.69	19	12	7	0	2.87	
23	52	17	66	13	39	7	15	15	38	5.77	5.45	6.29	7.23	6.19	20	11	7	0	3.07	
63	102	0	0	8	9	15	25	1	1	4.51	6.29	3.74	4.74	4.82	21	10	7	0	4.50	
25	46	15	16	6	7	6	6	2	3	3.26	5.20	5.60	6.60	5.17	18	13	9	0	3.12	
23	26	0	0	0	0	1	2	5	8	6.03	6.80	6.70	7.96	6.87	25	6	8	0	3.32	
24	51	7	18	9	24	11	26	8	21	5.35	4.61	4.96	6.51	5.36	19	12	6	0	7.75	
39	109	14	20	0	0	0	0	17	47	4.67	4.48	4.83	5.06	4.76	18	13	11	0	2.40	
57	110	1	2	0	0	0	0	27	56	4.23	5.52	5.74	6.65	5.54	21	10	5	0	0.21	
8	15	0	0	0	0	2	3	11	14	5.48	5.87	6.87	7.45	6.42	23	8	4	0	6.76	
29	65	0	0	0	0	0	0	26	49	5.09	6.32	7.45	6.29	6.29	20	11	5	0	4.10	

MONTH OF OCTOBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Clarke	58.61	66.87	76.25	63.16	66.22	86	40	19.8	26.2	23	53	4	10	15	31
Fort Fillmore	52.70	64.96	79.80	62.48	65.00	91	38	26.0	27.0	0	0	4	15	13	22
Fort Webster	40.00	64.30	71.12	46.15	55.39	82	26	26.6	29.4	9	22	2	5	0	0
Fort Conrad	41.29	58.22	73.87	55.80	57.29	88	25	30.7	32.3	20	50	23	82	2	2
Albuquerque	56.65	58.29	60.84	59.42	58.80	66	48	7.2	10.8	4	8	7	14	14	24
Santa Fē	39.70	50.09	57.32	45.96	48.27	70	22	21.7	26.3	6	11	17	42	8	15
Fort Union	33.67	48.87	59.32	43.64	46.37	72	14	25.6	32.4	36	48	33	60	2	5
Fort Defiance	29.61	46.64	59.83	40.77	44.21	73	17	28.8	27.2	12	28	9	18	3	7
Fort Yuma	66.51	79.16	92.06	80.03	79.44	100	50	20.6	29.4	36	79	21	29	1	1
San Diego	59.35	74.12	79.48	62.83	68.94	99	46	20.1	22.9	0	0	11	12	25	28
Rancho de Jurupa	57.61	70.35	80.22	67.77	69.00	90	46	21.0	23.0	0	0	52	60	0	0
Fort Miller	55.58	69.22	83.19	67.09	68.77	97	45	28.2	23.8	0	0	1	1	50	74
San Francisco	53.58	61.58	66.06	57.41	59.66	82	49	22.3	10.7	3	7	7	12	3	6
Benicia Barracks	55.38	61.35	76.77	64.45	64.50	90	49	25.5	15.5	1	2	4	10	0	0
Fort Reading	50.48	64.96	81.22	63.54	65.05	95	40	29.9	25.1	28	62	0	0	1	1
Fort Jones	35.67	56.42	71.80	50.80	53.67	84	26	30.3	27.7	1	1	0	0	0	0
Columbia Barracks	46.40	55.00	61.40	51.25	53.51	82	28	28.5	25.5	25	57	0	0	40	92
Dalles of the Columbia	45.74	54.96	66.83	53.87	55.35	84	25	28.6	30.4	5	9	6	7	1	1
Fort Steilacoom	45.25	55.58	62.32	51.19	53.58	78	29	24.4	24.6	16	51	2	3	3	8

MONTH OF OCTOBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
40	98	10	16	2	4	16	22	5	12	4.83	4.74	5.51	6.61	5.42	17	14	4	0	4.00	
11	22	17	28	13	27	2	2	12	23	9.19	8.67	8.67	9.16	8.92	31	0	4	0	0.90	
1	2	4	6	11	21	19	36	78	198	9.41	9.54	9.22	9.64	9.45	31	0	3	0	0.40	
6	8	3	3	10	15	36	47	14	28	7.09	6.93	7.00	7.54	7.14	25	6	0	0	0.00	
3	4	23	23	1	1	21	40	1	1	6.13	6.90	6.03	5.84	6.22	26	5	0	0	0.00	Therm. protected.
8	17	6	7	8	14	25	43	17	31	5.42	7.00	7.32	5.90	6.41	25	6	4	0	0.97	
5	9	1	2	12	23	8	18	22	52	5.51	5.64	5.51	5.87	5.63	21	10	4	2	1.29	
4	6	7	9	27	38	19	29	22	36	8.73	8.80	8.77	8.83	8.70	26	3	2	0	0.94	No observations on
10	16	3	4	11	23	9	24	30	89	8.19	8.16	7.93	8.77	8.26	31	0	0	0	0.00	[25th and 26th,
14	14	19	21	21	36	27	41	5	8	4.38	7.35	9.38	6.12	6.81	27	4	0	0	0.00	
11	11	0	0	49	102	1	4	9	35	6.38	7.64	8.61	8.67	7.82	28	3	0	0	0.00	
15	19	0	0	5	6	29	37	3	8	9.09	8.80	8.45	9.70	9.01	30	1	0	0	0.00	
1	1	0	0	50	154	51	176	9	27	4.45	5.16	6.38	5.54	5.38	18	13	4	0	0.28	
2	4	5	8	6	20	97	346	1	3	4.35	5.35	7.38	8.00	6.27	19	12	1	0	0.04	
0	0	12	20	0	0	1	1	4	8	7.25	7.32	6.93	7.38	7.22	27	4	2	0	0.02	
1	1	4	11	1	4	1	2	2	9	3.80	5.67	5.60	6.90	5.49	22	9	2	0	0.48	
11	26	0	0	2	6	23	47	8	17	1.61	2.90	3.13	4.00	2.91	10	21	11	0	3.66	
2	3	5	8	71	106	21	39	7	13	6.38	6.45	6.58	6.83	6.56	23	8	4	0	0.24	
18	52	38	110	32	113	3	9	12	27	1.67	2.79	4.25	4.90	3.40	11	20	16	0	6.93	

MONTH OF NOVEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	38.20	41.30	47.60	40.63	41.93	63	17	21.1	24.9	22	59	18	45	6	15
Fort Hamilton	44.18	46.50	50.46	46.50	46.91	57	24	10.1	22.9	14	17	23	27	0	0
Fort Columbus	40.43	44.16	49.50	43.16	44.31	65	20	20.7	24.3	2	8	11	13	21	38
West Point	40.30	46.70	47.73	42.80	44.38	68	18	23.6	26.4	38	110	0	0	4	5
Watervliet Arsenal	35.13	39.00	45.16	36.80	39.02	56	14	17.0	25.0	15	45	2	6	1	2
Fort Niagara	39.33	41.06	44.53	40.30	41.30	65	22	23.7	19.3	14	48	6	11	20	43
Alleghany Arsenal	38.73	43.83	52.63	42.33	44.38	67	18	22.6	26.4	13	25	7	9	10	11
Fort McHenry	44.00	47.60	54.53	48.50	48.66	68	30	19.3	18.7	32	50	23	38	10	18
Fort Monroe	51.40	56.16	60.57	53.70	55.46	76	36	20.5	19.5	10	15	34	76	10	15
Fort Moultrie	55.83	59.83	66.36	60.06	60.52	77	42	16.5	18.5	35	103	50	184	1	2
Fort Pierce	71.53	75.03	77.00	72.73	74.07	82	58	7.9	16.1	11	34	90	248	20	82
Key West Barracks	73.43	75.83	77.93	75.83	75.76	83	69	7.2	6.8	64	323	29	108	14	55
Fort Myers	66.76	71.36	77.90	73.96	72.50	84	58	11.5	14.5	1	2	60	167	42	133
Fort Brooke	67.19	70.90	76.90	72.60	71.90	82	62	10.1	9.9	3	3	73	169	15	26
Fort Meade	63.70	69.90	75.76	69.03	69.60	84	54	14.4	15.6	41	71	24	49	11	14
Mount Vernon Arsenal	53.22	60.34	70.62	60.21	61.10	78	40	16.9	21.1	14	38	34	67	26	45
Fort Towson	47.40	52.80	65.90	53.70	54.95	81	26	26.1	28.9	31	64	8	9	51	101
Fort Washita	47.20	52.56	63.03	53.93	54.18	76	32	21.8	22.2	18	54	4	12	23	53
Fort Smith	46.93	49.56	62.83	53.23	53.14	75	31	21.9	22.1	3	5	8	14	38	60
Fort Gibson	46.66	52.83	61.53	51.43	53.11	76	29	22.9	24.1	24	25	1	1	0	0
Jefferson Barracks	44.10	47.63	59.00	49.20	49.98	74	22	24.0	28.0	8	23	0	0	3	4
St. Louis Arsenal	41.23	45.93	55.30	45.37	46.96	72	27	25.0	20.0	15	26	8	19	9	18
Newport Barracks	34.37	46.60	53.70	49.27	45.98	68	31	22.0	15.0	7	29	9	34	28	77
Fort Mackinac	31.66	35.13	36.90	31.90	33.75	46	8	12.3	25.7	6	12	12	41	12	42
Fort Brady	28.23	33.37	35.00	33.43	32.51	48	1	15.5	31.5	8	21	7	19	19	44
Fort Ripley	20.60	24.06	29.13	23.00	24.20	43	0	17.8	24.2	16	37	11	27	5	9
Fort Snelling	24.60	30.53	34.33	28.96	29.60	54	8	24.4	21.6	13	24	15	17	7	14
Fort Ridgely	24.53	30.30	34.40	27.60	29.21	55	7	25.8	22.2	24	48	5	9	5	7
Fort Leavenworth	37.50	43.83	53.20	42.20	44.18	63	22	18.8	22.2	0	0	5	7	5	6
Fort Riley	37.30	43.43	51.10	44.73	44.14	64	20	19.9	24.1	32	59	15	33	6	12
Fort Kearney	28.00	32.86	44.63	31.13	34.16	68	9	23.8	25.2	19	61	6	19	4	4
Fort Laramie	35.63	39.53	49.63	42.13	41.73	66	22	24.3	19.7	14	34	16	40	4	9
Fort Arbuckle	44.46	53.16	64.10	49.90	52.91	79	25	26.1	27.9	24	28	17	19	5	7
Fort Belknap	45.13	56.04	67.53	53.08	55.45	84	30	24.5	25.5	36	109	4	9	0	0
Phantom Hill	46.43	55.83	69.36	53.36	56.24	87	32	30.8	24.2	12	28	16	23	1	3
Fort Chadbourne	42.86	53.80	67.80	52.50	54.24	80	21	25.8	33.2	1	1	11	14	0	0
Fort Mason	50.00	56.20	70.00	56.43	58.16	83	32	24.8	26.2	14	51	2	4	5	9
Fort Terrett	48.56	60.40	69.63	55.70	58.57	81	31	22.4	27.6	0	0	21	36	0	0
Fort Merrill	56.50	66.16	78.30	67.18	67.04	87	40	20.0	27.0	15	37	11	19	3	7
Fort Ewell	52.46	65.03	78.20	61.96	64.41	91	38	26.6	26.4	20	36	6	9	8	13
Fort Brown	63.36	71.63	74.46	68.03	69.37	79	45	9.6	24.4	2	5	21	46	29	69
Ringgold Barracks	60.26	68.50	79.50	69.16	69.34	88	45	18.7	24.3	14	23	9	16	5	13
Fort McIntosh	57.40	69.93	78.76	65.83	67.98	91	34	23.0	34.0	1	2	21	34	3	4
Fort Inge	50.06	62.83	73.43	56.66	60.75	83	31	22.3	29.7	15	26	47	62	36	59
Fort Duncan	52.63	65.03	73.76	60.51	62.98	85	32	22.0	31.0	2	2	0	0	56	60
Fort Clarke	54.13	62.13	73.46	59.20	62.23	83	40	20.8	22.2	28	74	5	11	22	61
Fort Fillmore	43.50	56.23	75.40	54.80	57.48	84	37	26.5	20.5	2	3	0	0	14	29

MONTH OF NOVEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	5	3	4	7	15	25	71	27	72	3.40	2.96	4.16	3.90	3.60	13	17	13	1	4.52	
6	8	0	0	37	48	2	2	36	77	3.86	4.03	4.70	4.73	4.33	17	13	10	0	3.71	
12	22	1	2	35	48	7	13	23	69	5.90	5.73	7.03	6.36	6.25	20	10	5	0	6.80?	
11	22	45	104	7	18	1	2	11	52	4.00	4.86	4.26	4.36	4.42	15	15	8	1	5.60	
9	19	12	37	5	18	15	52	12	29	5.20	5.10	5.40	5.30	5.25	17	13	8	2	5.37	
1	2	27	50	3	5	33	70	13	28	1.86	2.60	4.13	4.23	3.21	14	16	7	2	2.18	
6	9	15	34	8	24	14	28	9	27	4.10	4.20	4.36	5.10	4.44	15	15	11	1	2.90	
3	8	3	5	8	19	15	25	8	13	3.53	3.86	4.26	3.53	3.79	12	18	6	0	3.50	
2	6	18	30	8	12	3	8	26	51	3.30	4.10	4.13	3.77	3.82	14	16	4	0	5.25	
1	2	5	11	6	9	4	5	18	44	5.66	6.50	6.60	8.00	6.69	22	8	7	0	4.89	
7	23	7	9	1	2	2	5	12	39	1.66	2.83	1.83	3.00	2.33	9	21	14	0	3.41	
2	6	2	5	0	0	0	0	0	0	5.86	5.66	6.26	7.10	6.22	23	7	8	0	1.08	
0	0	1	1	2	3	3	7	7	25	5.40	6.26	5.03	4.93	5.40	20	10	6	0	0.79	
26	46	0	0	1	3	0	0	0	0	4.17	6.00	4.10	6.14	5.10	19	11	6	0	2.90	
8	9	4	6	2	3	11	17	15	28	4.06	4.30	4.10	6.83	4.82	19	11	10	0	0.78	
33	63	0	0	0	0	0	0	13	30	6.91	6.10	6.13	8.13	6.81	23	7	3	0	2.70	
7	11	15	35	0	0	3	6	0	0	3.20	4.00	4.70	6.00	4.47	13	17	3	0	1.97	
20	74	40	147	8	29	4	7	2	6	3.70	3.40	3.56	6.23	4.22	12	18	3	0	0.80	
4	6	7	10	12	24	17	27	11	18	3.63	4.06	4.73	7.16	4.89	16	14	2	0	1.85	
31	42	19	36	0	0	1	1	4	9	3.73	3.53	4.46	6.36	4.52	13	17	7	0	1.30	
1	4	51	120	6	20	33	67	0	0	1.63	2.96	5.03	5.40	3.76	14	16	5	0	2.40	
2	2	34	67	12	22	6	7	6	21	....	....	....	....	....	15	15	5	0	0.85	
3	5	34	84	22	69	10	37	7	31	1.93	3.93	2.67	4.77	3.33	11	19	6	0	2.80	
19	48	17	57	7	28	16	62	30	95	1.56	1.36	1.53	1.73	1.54	5	25	2	4	0.93	
2	4	8	23	17	58	16	57	3	11	3.53	3.37	2.97	3.43	3.32	11	19	5	9	1.77	Inaccurate.
16	36	17	23	16	28	13	32	15	45	2.53	2.66	3.00	2.66	2.71	11	19	6	3	1.18	
24	54	19	39	7	10	8	17	23	47	3.83	4.03	4.43	5.13	4.36	15	15	3	4	0.56	
16	38	11	16	6	14	10	23	42	105	1.43	1.63	1.80	3.50	2.09	9	21	4	4	1.51	
10	18	0	0	45	102	15	22	36	53	3.80	4.16	4.00	3.10	3.77	15	15	6	0	2.07	
23	64	18	37	5	10	5	9	3	8	3.36	3.33	2.86	4.20	3.44	12	18	7	4	2.71	
6	12	28	52	3	7	10	19	10	35	3.13	3.76	4.83	6.53	4.34	15	15	3	4	1.00	
0	0	0	0	1	1	39	146	8	26	5.40	6.43	7.03	3.70	5.64	20	10	1	2	0.08	Therm. protected?
47	70	17	20	3	3	0	0	1	1	6.63	7.86	7.96	8.33	7.69	24	6	3	0	1.05	
47	170	13	34	7	31	0	0	12	36	4.60	4.80	5.30	8.20	5.72	19	11	3	0	1.03	
11	20	41	64	23	30	3	5	12	16	7.53	7.13	8.66	8.76	8.02	26	4	2	0	0.23	
4	5	0	0	7	8	2	2	12	13	6.66	6.06	7.86	8.00	7.14	20	10	5	0	0.19	
18	39	28	105	23	65	2	3	14	35	5.03	5.80	7.70	8.47	6.75	21	9	3	0	0.12	
66	108	0	0	9	14	10	15	6	9	4.43	5.83	7.53	5.23	5.76	22	8	2	0	0.04	
19	35	24	65	1	1	6	11	1	1	2.21	5.13	6.11	7.19	5.16	19	11	3	0	1.40	
32	76	2	5	0	0	1	2	7	8	5.33	6.50	7.06	7.93	6.70	20	10	3	0	0.83	
21	44	2	4	12	24	17	38	15	37	7.46	7.60	7.70	7.93	7.67	26	4	3	0	1.30	
14	29	57	75	5	5	1	1	14	16	5.66	6.20	6.10	7.46	6.36	19	11	3	0	0.19	
44	95	2	2	5	5	5	5	18	31	5.06	6.43	6.93	7.80	6.56	24	6	3	0	0.01	
15	30	0	0	0	0	0	0	1	1	5.30	5.46	7.26	8.13	6.54	22	8	1	0	0.15	
21	50	5	6	0	0	8	9	22	36	3.00	5.00	8.03	7.40	5.86	23	7	1	0	0.05	
16	41	11	24	3	8	1	2	5	9	3.80	4.46	6.06	7.36	5.42	20	10	1	0	0.21	
7	19	10	24	15	34	0	0	11	32	9.33	9.10	9.06	9.30	9.20	29	1	3	0	1.15	

MONTH OF NOVEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Webster	33.03	55.60	66.50	41.36	49.12	76	23	26.9	26.1	9	16	0	0	1	1
Fort Conrad	31.93	42.43	65.00	47.26	46.66	75	26	28.3	20.7	29	31	11	25	2	3
Albuquerque	42.16	47.53	54.90	46.00	47.80	64	23	16.2	24.8	14	21	6	9	5	5
Santa Fé	31.06	42.63	51.20	36.30	40.30	61	26	20.7	14.3	11	18	20	45	5	9
Fort Union	30.96	44.80	55.40	39.06	42.56	69	18	26.4	24.6	46	71	15	20	4	5
Fort Defiance	24.56	33.13	55.03	33.00	36.43	69	13	32.6	23.4	0	0	8	8	0	0
Fort Yuma	53.33	64.43	78.26	66.93	65.74	86	45	20.3	20.7	39	99	24	41	0	0
San Diego	49.25	60.45	69.03	54.83	58.39	78	40	19.6	18.4	0	0	19	21	33	34
Rancho de Jurupa	45.33	60.20	69.73	52.73	57.00	80	35	23.0	22.0	5	9	57	74	3	5
Fort Miller	46.43	55.33	68.36	52.76	55.72	79	39	23.3	16.7	6	10	0	0	45	71
San Francisco	51.76	56.93	60.76	54.30	55.94	67	43	11.0	13.0	8	18	8	17	3	7
Benicia Barracks	53.00	54.06	62.86	55.26	56.29	75	44	18.7	12.3	5	8	5	14	18	35
Fort Reading	46.50	51.50	61.73	52.76	53.12	75	33	21.9	20.1	7	13	0	0	2	2
Fort Jones	33.10	42.16	54.93	40.76	42.74	71	16	28.3	26.7	2	4	1	6	1	2
Columbia Barracks	42.80	46.16	48.86	43.63	45.37	59	31	13.6	14.4	1	1	2	2	6	14
Dalles of the Columbia	36.33	41.66	48.33	40.86	41.80	59	22	17.2	19.8	2	2	15	16	1	1
Fort Steilacoom	39.53	46.70	50.43	43.73	45.10	59	27	13.9	18.1	6	19	0	0	0	0

MONTH OF NOVEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
4	8	5	11	5	11	28	66	62	133	9.00	9.13	9.36	9.70	9.30	28	2	2	0	0.26	
1	4	9	15	13	34	30	44	17	32	7.80	8.06	7.63	7.93	7.85	28	2	3	0	0.59	
3	4	30	36	5	9	33	36	2	3	6.56	6.70	6.36	6.43	6.51	26	4	2	0	0.31	Therm. protected.
8	17	6	9	13	25	14	31	15	28	5.30	7.23	7.33	7.73	6.90	27	3	2	1	0.43	
3	4	0	0	9	24	4	10	26	83	6.30	6.86	6.26	6.73	6.54	25	6	2	2	0.38	
13	15	6	9	67	87	13	16	8	9	8.63	7.80	6.70	8.66	7.95	26	4	4	0	0.22	
5	8	4	10	13	33	7	18	22	58	6.53	6.76	6.20	6.50	6.50	22	8	2	0	0.18	
15	15	23	25	22	37	11	18	1	1	5.64	6.90	7.90	6.58	6.76	21	9	5	0	1.28	
5	6	0	0	27	71	2	3	15	36	6.43	6.80	7.06	7.66	7.00	24	6	2	0	0.44	
20	34	3	3	1	1	1	1	20	21	5.66	5.56	5.93	8.10	6.31	20	10	3	0	1.26	
22	67	11	55	25	59	32	98	3	10	2.76	3.66	4.00	5.30	3.93	13	17	10	0	2.00	
3	7	9	23	17	54	44	108	0	0	2.43	3.16	3.36	4.07	3.25	10	20	8	0	1.71	
1	1	15	42	7	11	1	1	1	1	3.36	3.43	3.66	4.00	3.61	13	17	8	0	2.52	
2	10	2	9	5	25	2	7	1	3	2.50	1.80	1.90	4.50	2.67	7	23	13	0	4.47	
80	194	4	4	3	3	1	1	20	22	0.06	0.50	0.53	0.70	0.45	2	28	16	0	11.57	
5	6	3	5	63	92	15	30	9	16	2.83	3.33	3.83	3.86	3.46	9	21	12	2	4.90	
2	5	67	240	30	99	2	6	7	20	0.63	1.13	2.86	2.66	1.82	7	23	17	0	18.41	

MONTH OF DECEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	25.67	27.58	32.93	28.48	28.67	41	8	12.3	20.7	19	60	38	100	2	4
Fort Hamilton	30.54	33.74	36.58	34.25	33.53	48	12	14.5	21.5	13	15	8	11	0	0
Fort Columbus	29.54	32.80	36.87	33.32	33.13	50	18	16.9	15.1	16	25	23	68	2	3
West Point	27.41	31.00	33.67	29.67	30.44	44	10	13.5	20.5	51	199	1	3	0	0
Watervliet Arsenal	24.90	25.74	28.58	23.45	25.67	40	8	14.3	17.7	18	66	0	0	0	0
Fort Niagara	26.46	28.93	30.56	27.53	28.37	46	8	17.6	20.4	13	41	5	13	24	32
Alleghany Arsenal	26.32	28.26	34.51	28.45	29.38	49	3	19.6	26.4	10	14	16	22	11	12
Fort McHenry	31.51	37.45	42.61	34.93	36.62	60	18	23.4	18.6	43	71	19	31	2	2
Fort Monroe	38.12	43.51	49.35	41.39	43.09	64	24	20.9	19.1	27	103	11	25	16	41
Fort Moultrie	45.19	47.55	55.32	48.68	54.19	66	31	11.8	23.2	23	75	66	85	1	1
Fort Pierce	55.03	62.83	69.64	59.35	59.21	77	35	17.8	24.2	8	19	17	45	2	2
Key West Barracks	65.42	68.61	71.13	68.61	68.44	79	55	10.5	13.5	51	164	20	65	3	8
Fort Myers	55.35	60.70	70.51	60.25	61.70	79	40	17.3	21.7	33	109	15	28	14	19
Fort Brooke	51.93	58.03	66.96	55.61	58.13	77	38	18.9	20.1	10	16	38	67	1	2
Fort Meade	48.13	55.26	67.67	56.84	56.98	75	30	18.0	27.0	17	33	25	38	11	16
Barrancas Barracks	45.87	52.64	59.16	49.19	51.71	70	35	18.3	16.7	20	43	6	15	2	4
Mount Vernon Arsenal	41.51	47.51	53.77	46.45	47.31	73	28	25.7	19.3	20	35	30	45	0	0
Baton Rouge Barracks	43.91	48.77	61.59	50.74	51.10	74	27	22.9	24.1	39	101	17	37	32	74
Fort Towson	35.00	40.10	52.80	42.00	42.48	74	20	31.5	22.5	42	91	3	4	42	74
Fort Washita	36.35	40.58	50.87	42.74	42.63	73	21	30.4	21.6	24	83	2	6	17	46
Fort Smith	31.61	36.00	49.87	41.74	39.80	72	17	32.2	22.8	4	9	21	34	32	50
Fort Gibson	34.67	40.80	49.58	39.83	41.22	72	16	30.8	25.2	23	45	3	3	1	4
Jefferson Barracks	28.80	34.93	40.25	34.06	34.51	57	10	22.5	24.5	11	22	10	47	7	11
St. Louis Arsenal	27.68	30.53	39.97	30.36	32.14	56	10	23.9	22.1	24	52	8	10	6	7
Newport Barracks	31.68	32.38	37.93	37.54	34.88	58	13	23.1	21.9	13	67	2	5	22	44
Fort Mackinac	20.93	24.19	26.74	22.77	23.66	42	3	18.3	20.7	18	33	14	30	10	31
Fort Brady	17.48	22.90	23.84	17.64	20.47	38	— 5	17.5	25.5	15	51	16	38	31	50
Fort Ripley	11.09	13.74	23.54	14.58	15.74	41	—21	25.3	36.7	17	38	9	17	8	15
Fort Snelling	13.70	16.48	24.41	18.32	18.23	47	—16	28.8	34.2	5	11	5	12	4	5
Fort Ridgely	14.27	21.29	25.87	18.58	20.01	45	—14	23.0	34.0	10	43	2	4	4	9
Fort Leavenworth	26.48	30.06	38.38	32.12	31.76	56	8	24.2	23.8	0	0	18	27	1	1
Fort Riley	31.32	36.06	42.83	36.67	36.69	56	12	19.3	24.7	13	20	10	20	8	11
Fort Kearney	21.03	27.19	39.74	29.09	29.26	62	— 1	32.7	30.3	14	40	4	13	2	3
Fort Laramie	28.00	30.51	42.35	34.03	33.72	68	13	34.3	20.7	30	51	0	0	0	0
Fort Arbuckle	36.38	42.67	50.48	40.22	42.44	73	20	30.6	22.4	20	20	10	12	23	33
Fort Belknap	37.86	46.38	52.09	47.96	46.07	80	25	33.9	21.1	26	66	17	47	1	3
Phantom Hill	37.67	46.58	58.58	43.96	46.60	80	24	33.4	22.6	13	24	5	6	4	6
Fort Chadbourne	37.22	46.54	56.41	46.29	46.61	76	26	29.4	20.6	9	18	13	19	3	5
Fort Terrett	41.09	50.80	61.67	48.80	50.59	72	23	21.4	27.6	0	0	21	36	16	23
Fort Merrill	51.22	58.12	63.25	56.01	57.15	80	38	22.9	19.1	31	38	6	17	0	0
Fort Ewell	45.22	54.93	67.35	52.83	55.08	86	26	30.9	29.1	25	39	8	15	7	8
Fort Brown	56.32	62.80	68.58	61.16	62.26	76	42	13.7	20.3	5	11	21	49	22	48
Ringgold Barracks	51.96	59.90	71.09	61.19	61.03	82	36	21.0	25.0	27	39	2	2	28	34
Fort McIntosh	49.19	58.77	68.03	54.57	57.71	79	32	21.3	25.7	14	36	9	11	11	12
Fort Inge	43.51	51.93	62.97	48.90	51.80	76	29	24.2	22.8	25	31	48	68	30	46
Fort Duncan	44.84	52.52	65.84	52.77	54.00	78	31	24.0	23.0	1	2	14	18	0	0
Fort Clarke	45.41	52.41	63.87	50.00	52.92	76	30	13.1	22.9	16	47	9	26	18	33

MONTH OF DECEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	7	0	0	7	14	20	54	25	68	3.51	4.22	4.61	4.61	4.24	16	15	4	6	2.71	
3	4	0	0	7	13	0	0	90	216	4.19	5.80	5.48	5.22	5.17	18	13	3	6	1.16	
0	0	2	4	10	18	27	62	41	129	6.29	6.16	6.09	6.12	6.16	21	10	2	5	1.04	
8	11	13	19	9	17	5	11	34	118	5.51	4.48	5.22	6.54	5.46	17	14	3	6	2.26	
3	7	14	38	9	25	41	48	27	77	7.00	7.50	7.50	7.00	7.25	21	10	2	6	1.43	
0	0	9	17	16	19	50	125	8	40	1.23	2.60	1.86	2.23	1.98	6	25	3	6	1.17	
2	3	10	34	14	53	12	49	16	43	2.32	2.03	3.12	3.58	2.76	7	24	3	9	2.10	
3	7	1	5	9	26	13	25	18	50	4.06	5.03	4.90	4.51	4.62	16	15	3	4	2.30	
4	12	3	7	9	27	6	13	47	154	3.97	4.06	4.45	4.45	4.23	13	18	5	3	1.90	
1	4	9	38	21	66	17	64	22	70	5.90	6.35	6.22	6.71	6.29	21	10	8	1	2.39	
13	28	3	3	15	43	9	27	52	137	3.25	3.25	3.32	5.77	3.90	13	18	5	0	0.73	
1	1	5	18	12	37	7	33	17	67	6.84	6.61	6.48	8.03	7.00	23	8	4	0	0.89	
2	6	5	13	9	19	7	19	22	55	7.06	6.70	6.22	7.83	6.95	25	6	6	0	3.55	
9	15	0	0	23	66	0	0	34	78	4.12	5.35	5.32	6.45	5.31	19	12	6	0	7.38?	
6	12	1	2	11	20	14	30	21	52	2.68	4.29	4.84	6.51	4.58	15	16	7	0	1.67	
3	10	4	13	8	21	11	28	68	180	3.54	4.58	4.67	4.16	4.24	15	16	4	0	1.25	Inaccurate.
4	7	5	9	8	15	1	3	52	124	5.51	5.45	5.83	6.35	5.79	18	13	8	2	13.09?	
5	10	4	9	2	3	11	27	11	25	3.53	4.09	3.79	5.40	4.28	12	19	8	1	5.00	
5	9	17	37	2	2	8	18	1	2	3.20	3.90	4.30	6.20	4.40	16	15	5	2	1.27	
8	23	29	82	10	31	18	39	11	37	4.03	3.80	3.48	5.25	4.14	14	17	7	3	1.43	
1	1	1	3	7	14	26	49	13	31	4.90	3.45	5.19	6.80	5.08	18	13	3	1	0.76	
18	31	11	13	2	2	3	5	9	20	5.09	4.22	4.58	6.00	4.97	18	13	4	1	0.70	
5	15	36	63	5	11	23	40	12	31	2.77	4.03	4.41	5.70	4.23	17	14	2	2	1.23	
1	1	12	17	15	26	25	53	7	22	....	....	....	....	....	18	13	1	1	0.35	Inaccurate.
1	3	39	67	9	23	29	113	1	6	2.74	4.19	2.64	4.35	3.48	14	17	1	2	1.40	
17	80	14	17	12	44	8	15	28	93	0.80	1.19	2.54	2.67	1.80	6	25	1	7	2.87	
4	9	12	35	7	12	1	3	4	9	3.13	4.13	3.14	3.70	3.52	12	19	0	9	0.74	
11	26	29	51	17	31	10	30	15	39	4.19	4.19	4.38	4.39	4.28	13	18	0	8	0.63	
30	52	23	36	18	32	20	42	17	33	4.83	5.46	6.58	6.41	5.82	19	12	0	6	1.11	
20	38	15	20	19	41	17	58	27	96	3.22	3.22	3.03	4.61	3.52	12	19	1	9	1.84	
12	15	0	0	27	51	16	19	44	97	4.00	4.09	4.16	3.90	4.04	17	14	2	5	0.76	
10	20	34	72	4	11	19	36	4	13	4.70	3.54	4.29	5.51	4.51	17	14	4	6	0.55	
1	3	15	44	5	15	21	40	27	80	5.70	5.32	6.29	6.61	5.98	22	9	1	4	0.08?	
0	0	2	4	0	0	35	168	12	39	7.30	8.70	9.03	4.45	7.37	17	14	0	7	0.71	Therm. protected?
17	21	10	23	18	23	4	4	11	11	6.38	6.70	7.00	7.03	6.78	21	10	5	1	0.97	
35	109	11	37	4	12	6	19	20	71	3.07	4.54	4.64	5.61	4.46	16	15	4	2	1.75	
6	8	38	76	20	21	10	14	19	23	6.51	6.80	7.12	7.70	7.03	22	9	3	2	1.87	
1	2	1	1	2	3	1	2	18	25	3.96	4.15	5.87	6.51	5.12	15	16	5	1	2.67	
44	90	0	0	12	13	21	29	5	11	4.16	5.77	7.19	4.83	5.49	23	8	4	2	1.53	
7	9	7	7	6	6	22	30	17	29	1.50	4.25	5.33	6.03	4.28	15	16	7	0	1.18	
5	5	3	9	0	0	1	1	5	6	3.90	4.70	6.35	7.19	5.53	19	12	7	0	1.87	
16	57	3	7	10	24	16	42	31	72	4.64	4.58	4.45	6.00	4.92	18	13	4	0	0.65	
20	23	10	16	3	3	11	12	19	20	4.64	4.74	4.64	6.38	5.10	16	15	7	0	0.91	
32	44	5	9	5	6	1	1	16	20	3.90	4.58	5.90	5.83	5.05	17	14	5	0	0.92	
14	23	0	0	0	0	0	0	6	6	3.93	4.35	5.22	6.32	4.95	18	13	4	0	1.02	
62	112	0	0	4	8	2	2	37	93	3.32	4.13	5.03	5.74	4.55	17	14	7	0	2.69	
44	101	2	4	2	6	4	7	28	69	3.77	4.06	4.51	5.35	4.42	12	19	4	0	1.60	

MONTH OF DECEMBER, 1853.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean	Below mean.	N.		N. E.		E.	
Fort Fillmore	39.77	49.74	66.16	47.61	50.82	80	28	29.2	22.8	3	3	15	33	17	45
Fort Webster	30.00	47.00	63.60	39.50	45.02	68	26	23.0	19.0	5	11	1	1	0	0
Fort Conrad	28.80	36.25	51.25	37.19	38.37	67	18	28.6	20.4	42	95	5	12	11	20
Albuquerque	29.06	41.25	56.77	37.29	41.09	66	20	24.9	21.1	29	44	12	22	2	3
Santa Fé	22.19	31.67	42.03	29.58	31.39	52	7	20.6	24.4	16	33	24	57	8	15
Fort Union	22.22	36.80	46.32	31.12	34.12	57	11	22.9	23.1	29	38	13	26	0	0
Fort Defiance	19.59	26.16	42.35	26.50	28.65	57	6	28.4	22.6	14	18	9	9	0	0
Fort Yuma	49.19	55.67	67.41	56.12	57.10	84	36	26.9	21.1	41	103	17	27	0	0
San Diego	46.09	54.70	62.90	50.41	53.52	71	37	17.5	16.5	0	0	20	20	32	37
Rancho de Jurupa	43.48	56.25	64.32	50.45	53.62	82	29	28.4	24.6	16	58	61	141	6	11
Fort Miller	39.83	46.41	55.12	44.29	46.41	68	34	21.6	12.4	1	1	4	6	43	70
San Francisco	47.06	50.90	57.12	50.03	51.28	69	38	17.7	13.3	31	102	31	103	2	10
Benicia Barracks	41.86	44.90	54.35	45.16	46.57	68	32	21.4	14.6	8	15	36	51	10	19
Fort Reading	39.41	44.67	54.90	45.93	46.23	66	28	19.8	18.2	13	24	4	5	1	1
Fort Jones	26.96	32.24	43.61	30.88	33.42	55	10	21.6	23.4	..	..	..	..	..	..
Columbia Barracks	40.03	42.14	44.32	40.64	41.78	58	28	16.2	13.8	11	11	0	0	6	11
Dalles of the Columbia	36.25	39.19	44.64	40.22	40.07	60	28	20.0	12.0	0	0	13	15	12	13
Fort Steilacoom	38.74	44.30	51.00	44.45	44.62	60	23	15.4	21.6	4	11	0	0	11	35

MONTH OF DECEMBER, 1853.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	4	8	12	9	17	0	0	15	47	8.25	8.03	8.32	8.67	8.32	25	6	2	1	0.64	
0	0	1	2	0	0	9	20	26	60	8.60	8.90	8.90	9.00	8.85	11	0	1	1	0.08	First 11 days.
3	3	9	17	4	4	21	35	19	23	6.00	5.93	6.32	6.74	6.25	20	11	1	4	0.67	
12	23	19	22	7	13	11	12	10	20	6.12	6.12	6.00	7.35	6.40	21	10	1	3	0.30	Therm. protected.
12	29	8	20	13	23	9	11	12	25	5.03	6.48	6.74	6.38	6.16	21	10	1	5	0.77	
1	1	3	5	20	51	19	57	36	110	6.77	6.38	6.41	7.00	6.64	27	4	1	3	0.18	
6	8	15	19	16	18	35	65	24	33	7.09	6.80	6.58	8.16	7.16	22	9	1	4	0.25	
8	18	2	4	1	2	5	17	49	138	4.87	4.80	4.67	5.60	4.98	15	16	5	0	0.52	
11	11	18	21	25	44	14	20	1	1	5.29	5.32	6.87	6.35	5.96	20	11	6	0	1.77	
8	17	2	2	13	26	3	6	10	42	6.60	6.35	6.87	7.51	6.83	24	7	5	0	2.04	
18	24	9	10	3	3	8	10	3	3	6.29	6.03	6.03	7.25	6.40	19	12	3	0	1.00	
9	33	13	32	9	29	20	60	6	17	4.41	5.61	6.29	7.19	5.87	20	11	7	0	1.86	Therm. protected.
4	5	0	0	20	34	2	2	0	0	1.87	2.41	3.22	3.51	2.75	8	23	6	0	0.99	
1	1	2	2	0	0	0	0	0	0	5.84	6.45	3.52	7.00	5.70	23	8	7	0	1.18	
..	..	..	..	..	..	..	..	..	..	2.38	1.93	2.66	3.93	2.72	8	23	3	1	1.19	
51	99	2	5	11	17	2	2	32	51	0.10	0.32	0.45	0.68	0.40	3	28	17	1	3.22	
3	4	7	13	83	113	7	11	8	11	1.65	2.22	3.32	3.32	2.63	9	22	6	2	0.95	
12	34	59	162	28	52	5	16	3	9	0.70	1.29	3.16	3.90	2.26	5	26	13	0	4.42	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Sullivan........	44 54	66 58	30	27.51	27.31	30.92	40.65	48.83	56.12	61.54	61.20	......
Fort Preble..........	43 39	70 13	50	23.25	25.84	33.41	42.02	53.66	63.24	68.12	65.34	......
Fort Constitution	43 04	70 42	40	24.20	25.54	32.92	39.17	52.84	64.56	67.45	60.53	59.46
Fort Independence...	42 21	71 00	50	27.98	30.33	37.58	45.67	57.15	67.57	71.17	69.98	63.98
Fort Adams.........	41 30	71 19	40	30.85	33.20	38.34	45.34	56.36	67.48	72.87	70.84	64.65
Fort Trumbull.......	41 21	72 06	23	29.60	33.59	39.25	46.68	58.01	68.23	71.74	71.32	66.15
Fort Hamilton.......	40 37	74 02	25	29.72	33.17	39.92	46.73	58.63	69.00	73.52	74.22	67.66
Fort Columbus.......	40 42	74 01	23	32.08	33.50	39.58	48.13	60.25	71.20	72.77	73.52	66.41
West Point.	41 23	74 00	167	26.28	29.70	38.60	48.83	59.88	69.14	70.80	71.39	64.76
Watervliet Arsenal ..	42 43	73 43	50	30.14	30.86	37.78	42.88	55.29	69.55	70.74	70.39	61.38
Fort Ontario	43 20	76 40	250	24.87	24.73	31.92	41.31	49.00	66.44	69.12	......	......
Fort Niagara	43 18	79 08	250	27.35	27.64	34.00	42.54	55.88	69.17	69.92	72.90	62.84
Alleghany Arsenal...	40 32	80 12	704	29.31	32.08	38.50	50.42	60.90	73.72	72.21	71.88	65.02
Carlisle Barracks	40 12	77 14	......	28.94	32.21	38.62	48.18	60.54	73.00	73.78	72.61	65.72
Fort Mifflin	30 53	75 13	20	31.06	34.76	41.28	50.49	62.09	73.70	74.43	74.37	67.06
Fort McHenry.......	39 17	76 35	36	32.27	36.74	42.75	53.19	64.33	74.53	76.01	75.15	69.83
Fort Washington....	38 43	77 06	60	34.00	39.18	44.71	55.29	65.85	76.64	77.57	78.01	69.88
Fort Monroe.........	37 00	76 18	8	38.84	44.00	48.62	56.13	64.94	74.49	77.54	76.96	71.85
Fort Moultrie........	32 45	79 51	25	45.23	53.20	58.22	66.63	74.40	79.39	82.83	80.85	77.06
New Smyrna........	28 54	81 02	20?	57.44	60.48	66.64	72.15	76.76	79.07	79.05	78.60	78.59
Fort Pierce..........	27 30	80 20	30	60.03	62.83	73.77	79.27	81.82	81.03	86.21	85.23	81.61
Key West Barracks..	24 32	81 48	10	68.01	71.30	74.08	76.14	79.57	80.48	83.43	83.93	82.56
Fort Myers..........	26 38	82 00	50	63.59	67.51	71.57	76.23	80.76	80.66	84.38	84.43	81.12
Fort Brooke.........	28 00	82 28	20	58.93	64.79	69.83	73.81	78.13	78.79	82.52	82.47	79.78
Fort Meade	28 01	82 00	80	59.36	62.82	67.09	71.19	76.16	75.65	79.01	78.76	80.29
Fort Barrancas	30 18	87 27	20	49.37	54.69	62.30	69.27	74.45	79.42	81.38	81.49	76.83
Mt. Vernon Arsenal..	31 12	88 20	200	47.48	53.84	61.22	70.96	74.31	79.86	78.55	80.44	75.70
East Pascagoula	30 23	88 28	10	......	......	......	......	......	......	82.63	84.31	80.10
New Orleans Bar'ks..	29 57	90 00	10	50.65	56.51	62.70	70.42	74.33	80.23	......	......	......
Baton Rouge Bar'ks..	30 26	91 18	41	47.38	53.62	59.60	68.61	71.65	78.35	78.59	79.79	......
Fort Towson........	34 00	95 33	300	41.78	43.75	51.84	64.24	67.25	78.02	79.69	81.40	73.40
Fort Washita........	34 14	96 38	645	42.05	42.37	51.44	63.94	65.46	76.90	78.41	81.50	74.08
Fort Smith..........	35 23	94 29	460	40.20	41.67	50.66	63.97	64.93	76.21	77.93	80.57	71.53
Fort Gibson.........	34 47	95 10	842	39.63	39.90	49.40	63.31	64.79	78.11	80.23	82.36	73.31
Fort Scott...........	37 45	94 35	1000?	35.24	33.30	43.00	......	......	......	......	......	......
Jefferson Barracks ...	38 28	90 15	472	36.30	33.73	44.37	57.42	64.46	78.48	76.66	77.07	70.84
St. Louis Arsenal.....	38 40	90 05	450	33.25	31.88	42.95	56.53	64.58	78.13	76.00	76.27	69.01
Newport Barracks....	39 05	84 22	500	35.52	34.55	41.60	55.00	63.93	76.00	73.41	74.43	67.86
Fort Mackinac.......	45 51	84 33	728	22.85	17.68	27.12	38.13	46.76	56.00	63.81	65.06	57.22
Fort Brady..........	46 30	84 43	600	21.38	18.20	27.70	38.96	48.97	59.88	62.04	63.14	54.08
Fort Ripley	46 19	94 19	1130	13.61	7.11	22.46	43.85	52.02	62.92	65.70	66.34	56.53
Fort Snelling........	44 53	93 10	820	14.03	6.69	23.00	44.97	54.97	67.83	70.60	71.27	60.04
Fort Ridgely........	44 15	94 45	1100?	......	......	......	......	......	......	69.95	69.16	61.93
Fort Dodge	42 28	94 03	944	20.40	17.65	28.20	46.87	57.53	......	......	......	......
Fort Leavenworth...	39 21	94 44	896	32.03	30.53	39.87	54.98	59.97	72.82	72.72	75.71	68.24
Fort Riley..........	39 03	97 00	1300?	......	......	......	......	......	......	......	......	......
Fort Kearney........	40 38	98 57	2360	26.08	24.61	36.50	48.56	53.59	70.26	71.52	73.15	63.00
Fort Laramie........	42 12	104 47	4519	34.11	29.71	36.92	48.57	51.62	65.59	72.97	73.14	61.11

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1853.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
......	......	......	40.13	59.62	......	......	......	80	— 7	....	....	Maine.
......	......	......	43.03	65.57	......	......	......	90	— 4	....	....	Maine.
......	......	......	41.64	64.18	......	......	......	94	— 2	....	....	New Hampshire.
50.72	41.93	28.67	46.80	69.58	52.21	28.99	49.40	95	6	45.6	43.4	Boston harbor, Mass.
......	......	......	46.68	70.40	......	......	......	86	10	....	....	Rhode Island.
......	......	......	47.98	70.43	......	......	......	90	6	....	....	Connecticut.
52.86	46.91	33.53	48.43	72.25	55.81	32.14	52.16	89	8	36.8	44.2	New York harbor.
52.01	44.31	33.13	49.32	72.50	54.24	32.90	52.24	98 ?	9	45.8	43.2	New York harbor.
50.59	44.38	30.44	49.10	70.44	53.24	28.81	50.40	93	2	42.6	48.4	New York.
45.46	39.02	25.67	45.32	70.23	48.62	28.89	48.26	89	0	40.7	48.3	New York.
......	......	......	40.74	......	......	......	......	90	— 6	....	....	New York.
47.53	41.30	28.37	44.14	71.00	50.56	27.79	48.37	95	4	46.6	44.4	New York.
48.46	44.38	29.38	49.94	72.60	52.95	30.26	51.44	95	5	43.6	46.4	Pittsburg, Pennsylvania.
......	......	......	49.11	73.13	......	......	......	98	1	....	....	Carlisle, Pennsylvania.
54.86	......	......	51.29	74.17	......	......	......	98	7	....	....	Pennsylvania.
54.14	48.66	36.62	53.42	75.23	57.54	35.21	55.35	91	9	35.6	46.4	Baltimore, Maryland.
......	......	......	55.28	77.41	......	......	......	105 ?	8	....	....	Potomac river, Maryland.
59.20	55.46	43.09	56.56	76.33	62.17	41.98	59.26	98	20	38.7	39.3	Near Norfolk, Virginia.
65.70	60.52	54.19	66.42	81.02	67.76	50.87	66.52	92	27	25.5	39.5	Charleston, South Carolina.
72.62	......	......	71.85	78.91	......	......	......	95	31	....	....	Mosquito bay, E. coast of Fla
74.54	74.07	59.21	78.29	84.16	76.74	60.69	74.97	95	41	20.0	34.0	Indian river, Florida.
80.41	75.76	68.44	76.60	82.61	79.58	69.25	77.01	89	55	12.0	22.0	Florida.
77.65	72.50	61.70	76.19	83.16	77.09	64.27	75.18	92	49	16.8	26.2	Charlotte harbor, Florida
75.55	71.90	58.13	63.92	81.26	75.74	60.62	70.38	92	42	21.6	28.4	Tampa Bay, Florida.
74.44	69.60	56.98	71.48	77.84	74.78	59.72	70.96	92	33	21.0	38.0	Interior of Florida.
......	......	51.71	68.67	80.76	......	......	......	90	29	....	....	Pensacola Bay, Florida.
65.88	61.10	47.31	68.83	79.62	67.56	49.54	66.39	95	28	28.6	38.4	Alabama.
......	......	......	......	......	......	......	......	96	..	....	....	Mississippi.
......	......	......	69.13	......	......	......	......	..	32	....	....	Louisiana.
65.82	......	51.10	66.62	78.91	......	50.70	......	93	27	....	....	Louisiana.
60.27	54.95	42.48	61.11	79.70	62.87	42.67	61.59	97	12	35.4	49.6	Indian Territory.
60.78	54.18	42.63	60.28	78.94	63.01	42.35	61.14	98	12	36.9	49.1	Indian Territory.
58.79	53.14	39.80	59.85	78.24	61.15	40.56	59.95	101	12	41.0	48.0	Arkansas.
59.80	53.11	41.22	59.17	80.23	62.07	40.25	60.43	102	6	41.6	54.4	Indian Territory.
......	......	......	......	......	......	......	......	..	3	....	....	Kansas.
53.81	49.98	34.51	55.42	77.40	58.21	34.85	56.47	96	0	39.5	56.5	Missouri
51.70	46.96	32.14	54.69	76.80	55.89	32.42	54.95	104	1	49.0	54.0	Missouri.
51.35	45.98	34.88	53.51	74.61	55.06	34.98	54.54	96	8	41.5	46.5	Newport, Kentucky.
44.24	33.75	23.66	37.34	61.62	45.07	21.40	41.36	80	—16	38.6	57.4	Michigan.
40.59	32.51	20.47	38.54	61.69	42.39	20.02	40.66	96	—21	55.3	61.7	Michigan.
41.45	24.20	15.74	39.44	64.98	40.73	12.15	39.32	90	—35	50.7	74.3	Upper Mississippi river, Min.
45.60	29.60	18.23	40.98	69.90	45.08	12.98	46.74	90	—24	43.3	70.7	Minnesota.
47.57	29.21	20.01	......	......	46.24	......	......	92	—14	....	....	St. Peter's river, Minnesota.
......	......	......	44.20	......	......	......	......	..	—25	....	....	Des Moines river, Iowa.
53.39	44.18	31.76	51.61	73.75	55.27	31.44	53.02	94	— 3	41.0	56.0	Kansas. [Kansas riv., Kan.
......	44.14	36.69 ?	......	......	......	......	......	..	..	....	....	Junction of Republican F'k &
48.94	34.16	29.26	46.22	71.64	48.70	26.65	48.30	95	— 8	46.7	56.3	Platte river, Nebraska.
49.67	41.73	33.72	45.70	70.57	50.84	32.51	49.90	94	— 4	44.1	53.9	N. Fork of Platte riv., Nebras

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Atkinson	37 47	100 14	2330	36.08	33.76	42.67	56.77	61.51	73.37	79.51	84.77	73.70
Fort Arbuckle	34 36	97 40	1000?	41.33	40.68	51.24	64.26	66.25	77.35	79.50	81.81	74.51
Fort Worth.........	32 40	97 25	1100?	45.70	46.39	54.44	65.71	67.47	76.02	78.24	81.61	......
Fort Belknap........	33 08	98 48	1600?	44.86	43.28	54.51	67.31	68.41	78.12	81.72	84.59	79.29
Phantom Hill........	32 30	99 45	2300?	45.98	46.39	55.46	69.11	69.12	76.97	81.00	83.29	76.82
Fort Chadbourne	31 38	100 40	2120	45.25	47.44	53.78	64.88	65.32	70.52?	75.92	75.08	70.49
Fort Graham........	31 56	97 26	900?	51.58	41.49	57.16	67.00	72.02	79.75	79.35	84.53	......
Fort Croghan........	30 40	98 31	1100?	48.95	47.82	57.06	68.50	71.40	78.35	80.03	79.22	......
Fort McKavett......	30 55	100 05	2060	44.62	44.58	56.02	66.75	68.58	73.36	77.56	78.76	......
Fort Mason	30 48	99 15	1200?	46.57	47.45	56.84	69.35	71.30	76.96	79.53	80.60	76.69
Fort Terrett	30 23	100 16	1320	44.43	45.98	56.91	67.45	69.80	73.97	76.37	77.10	73.52
Fort Merrill.........	28 17	98 00	150?	......	......	......	......	......	......	......	83.90	79.64
Fort Ewell..........	28 05	98 57	200?	55.37	57.10	63.87	75.61	79.38	83.80	86.52	84.47	80.79
Fort Brown	25 54	97 26	50	56.35	59.84	69.94	78.73	78.97	82.06	84.45	82.76	78.91
Ringgold Barracks...	26 23	99 02	200?	57.32	60.59	67.43	77.59	82.57	83.80	87.32	84.50	80.62
Fort McIntosh	27 31	99 27	400?	55.18	56.97	66.36	78.24	81.73	84.26	87.71	85.72	82.39
Fort Duncan........	28 42	100 28	800?	49.47	52.95	62.85	74.67	79.86	81.20	84.65	81.79	80.67
Fort Inge...........	29 09	99 09	1000?	48.37	52.38	60.00	70.38	75.12	77.84	81.27	80.68	77.53
Fort Clarke.........	29 17	100 25	1000?	49.16	50.77	56.89	70.09	73.85	77.18	79.96	78.74	76.45
Fort Fillmore	32 13	106 31	3937	41.71	44.98	52.66	65.54	72.50	81.84	85.36	81.39	77.53
Fort Webster	32 42	108 00	6167	40.59	40.64	47.89	57.18	61.75	71.25	76.76	72.08	64.68
Fort Conrad.........	33 34	107 09	4576	38.68	39.78	50.53	63.68	66.76	75.35	79.76	75.92	71.36
Albuquerque	35 06	106 38	5032	41.97	40.25	46.42	59.24	65.10	73.43	78.58	......	70.86
Santa Fé............	35 41	106 02	6846	31.16	28.00	37.86	53.92	60.34	66.40	69.37	66.71	62.74
Fort Union..........	35 54	104 57	6670	33.80	31.11	39.78	52.21	56.69	64.52	64.84	64.29	58.38
Fort Massachusetts ..	37 32	105 23	8365	20.30	18.84	31.28	45.23	47.73	58.91	62.89	61.58	53.67
Fort Defiance	35 44	109 15	*7200?	29.47	28.06	37.57	48.15	51.63	64.86	70.52	69.00	61.39
Fort Yuma..........	32 43	114 36	120	59.32	58.60	67.61	73.22	77.66	89.49	94.12	92.16	89.33
San Diego	32 42	117 14	150	53.78	52.92	57.83	62.66	63.44	68.43	72.85	72.88	70.74
Rancho de Jurupa ...	34 00	117 25	1000	56.29	54.70	59.29	64.42	63.56	71.83	76.22	74.51	74.07
Fort Miller	37 00	119 40	402	49.75	53.09	58.61	64.23	70.16	84.57	89.56	82.56	75.00
San Francisco.......	37 48	122 26	150?	51.00	49.91	53.06	54.93	56.38	57.60	56.58	56.90	58.96
Benicia	38 03	122 08	64	48.63	49.85	52.90	56.13	60.62	68.68	65.14	63.98	64.37
Fort Reading	40 30	122 05	674	48.04	49.12	52.37	58.77	65.96	78.51	84.76	78.76	70.70
Fort Jones	41 36	122 52	2570	35.07	37.96	42.01	47.14	55.87	64.36	72.04	......	......
Fort Orford.........	42 44	124 29	50?	48.72	46.47	47.92	51.55	57.06	......	......	......	......
Columbia Barracks...	45 40	122 30	50	37.81	42.13	46.58	54.16	60.00	63.09	70.83	64.04	60.28
Dalles of Columbia ..	45 36	120 55	350?	32.27	37.14	43.76	53.41	62.14	66.58	74.92	70.21	63.71
Fort Steilacoom	47 10	122 25	300?	39.73	39.78	41.92	48.74	57.62	60.47	66.73	62.11	58.56

* The altitude of this post was estimated by the officer making the record at near 8,000 feet; but a recent comparison with a point on the line of survey near the 35th parallel, by Lieut. Whipple, shows that its altitude can but little exceed 7,000 feet.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1851.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
......	......	......	53.65	79.22	......	......	......	102	3	....	....	Arkansas river, Kansas.
60.77	52.91	42.44	60.58	79.55	62.73	41.48	61.08	101	10	39.9	51.1	Near Canadian river, Ind. Ter.
......	......	......	62.54	78.62	......	......	......	98	16	....	....	Northern Texas.
65.29	55.45	46.07	63.41	81.48	66.68	44.74	64.08	103	11	38.9	53.1	Upper Brazos river, Texas.
63.02	56.24	46.60	64.56	80.42	65.36	46.32	64.16	100	11	35.8	53.2	Clear Fork of Brazos, Texas.
54.71?	54.24	46.61	61.33	73.84	59.81	46.43	60.35	96	9	35.6	51.4	Near Colorado river, Texas.
......	......	......	65.06	81.21	......	......	......	103	19	....	....	José Maria village, Texas.
......	......	......	62.32	79.20	......	......	......	99	19	....	....	Texas.
......	......	......	63.78	76.56	......	......	......	102	16	....	....	San Saba river, Texas.
65.57	58.16	......	65.83	79.03	66.81	......	......	95	20	....	....	Llano river, Texas.
63.66	58.57	50.59	64.72	75.81	65.25	47.00	63.20	98	12	34.8	51.2	N. Fork of Llano riv., Texas.
74.87	67.04	57.15	......	......	73.85	......	......	100	38	....	....	Neuces river, Texas.
71.49	64.41	55.08	72.95	84.93	72.23	55.85	71.49	105	26	33.5	45.5	Neuces river, Texas.
71.11	69.37	62.26	75.88	83.09	73.13	59.48	72.89	94	30	21.1	42.9	Rio Grande, Texas.
73.28	69.34	61.03	75.86	85.21	74.41	59.65	73.78	102	31	28.2	42.8	Rio Grande, Texas.
72.92	67.98	57.71	75.44	85.90	74.43	56.62	73.10	108	28	24.9	45.1	Rio Grande, Texas.
69.64	62.98	51.80	72.46	82.55	71.10	51.41	69.38	104	19	34.6	50.4	Eagle Pass of Rio Grande,
66.76	60.75	54.00	68.50	79.93	68.35	51.58	67.09	96	18	28.9	49.1	Leona riv., Texas. [Texas
66.22	62.23	52.92	66.94	78.63	68.30	50.95	66.20	94	20	27.8	46.2	Las Moras, Texas.
65.00	57.48	50.82	63.53	82.86	66.67	45.84	64.72	106	13	41.3	51.7	Rio Grande, Southern N. Mex.
55.39	49.12	45.02	55.61	73.36	56.40	42.08	56.86	99	13	42.1	43.9	Copper Mines, Rio Mimbres,
57.29	46.66	38.37	60.32	77.01	58.44	38.94	58.68	98	11	39.3	47.7	N'r Valverde, N. M. [N. M.
58.80	47.88	41.09	56.92	......	59.18	41.10	......	86	13	....	....	New Mexico.
48.27	40.30	31.39	50.71	67.49	50.44	30.18	49.70	88	7	38.3	43.7	New Mexico.
46.37	42.56	34.12	49.56	64.55	49.10	33.01	49.06	93	2	43.9	47.1	Moro river, New Mexico.
......	......	......	41.41	61.13	......	......	......	87	— 8	....	....	Sangre de Cristo val., N. M.
44.21	36.43	28.65	45.78	68.13	47.34	28.73	47.50	94	6	46.5	41.5	Cañoncito, Western N. M.
79.44	65.74	57.10	72.83	91.92	78.17	58.34	75.31	121	36	45.7	39.3	Colorado river, California.
68.94	58.39	53.52	61.31	71.39	66.02	53.41	63.03	99	35	36.0	28.0	California.
69.00	57.00	53.62	62.42	74.19	66.69	54.87	64.54	96	29	21.5	35.5	Rio Santa Ana, California.
68.77	55.72	46.41	64.33	85.56	66.50	49.75	66.54	118	28	51.5	38.5	San Joaquin valley, California
59.66	55.94	51.28	54.79	57.03	58.19	50.73	55.18	82	39	26.8	16.2	California.
64.50	56.29	46.57	56.55	65.93	61.72	48.35	58.14	93	32	34.9	26.1	California.
65.05	53.12	46.23	59.03	80.68	62.96	47.80	62.62	109	28	46.4	34.6	Upper Sacramento val., Cal.
53.67	42.74	33.42	48.34	......	......	35.48	......	101	10	....	....	Scott's val., near Klamath riv.,
......	......	......	52.18	......	......	......	......	..	33	....	....	N'r C. Orford, Oregon. [Cal.
53.51	45.37	41.78	53.58	66.00	53.05	40.57	53.30	91	19	37.7	34.3	Oregon, (Fort Vancouver.)
55.35	41.80	40.07	53.10	70.57	53.62	36.49	53.44	105	10	51.6	43.4	Columbia river, Oregon.
53.58	45.10	44.62	49.43	63.10	52.41	41.38	51.58	94	20	42.4	31.6	Puget's Sound, Wash'n Ter.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1853.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Sullivan	1.70	7.20	4.50	1.90	3.30	0.35	1.70	4.90	....	....	....	....	9.70	6.95	....	....	....
Fort Preble	1.87	8.55	2.61	3.76	7.08	1.47	2.68	3.58	....	....	....	....	13.45	7.73	....	....	....
Fort Constitution	2.35	4.82	0.29?	3.23	6.96	0.52	0.92	5.18	3.21	....	....	....	10.48	6.62	....	....	....
Fort Independence	2.16	3.48	1.16	2.77	6.31	2.55	4.04	4.70	3.90	2.74	4.52	2.71	10.24	11.29	11.16	8.35	41.04
Fort Adams	6.63	5.13	4.65	10.48	7.56	2.38	4.92	5.34	3.25	....	....	....	22.69	12.64	....	....	....
Fort Trumbull	4.50	11.49?	4.86	11.44	10.75?	6.69?	7.87?	10.04	7.48	....	....	....	27.05?	24.60?	....	....	....
Fort Hamilton	4.58	7.24	5.79	4.78	6.02	4.42	5.83	5.23	3.75	2.73	3.71	1.16	16.59	15.48	10.19	12.98	55.24
Fort Columbus	4.14	4.98	2.03	3.32	5.80	4.80	4.40	5.50	5.49	3.90	6.80	1.04	11.15	14.70	16.19	10.16	52.20
West Point	3.27	5.45	3.23	5.84	7.99	3.77	10.48	7.87	3.95	3.85	5.60	2.26	17.06	22.12	13.40	10.98	63.56
Watervliet Arsenal	1.78	4.08	2.72	3.36	5 84	1.62	3.54	3.05	7.56	2.47	5.37	1.43	11.92	8.21	15.40	7.29	42.82
Fort Ontario	1.17	4.12	0.89	3.04	2.01	0.72	0.13?	....	....	....	....	....	5.94	....	....	....	....
Fort Niagara	1.11	1.64	2.54	3.40	3.70	1.60	2.71	1.56	3.55	1.31	2.18	1.17	9.64	5.87	7.04	3.92	26.47
Alleghany Arsenal	1.56	3.53	1.11	4.16	3.27	1.32	2.74	6.56	2.34	2.04	2.90	2.10	8.54	10.62	7.28	7.19	33.63
Carlisle Barracks	1.26	2.73	0.75	3.02	3.69	0.81	2.63	2.63	3.01	....	....	....	7.46	6.07	....	....	....
Fort Mifflin	0.80	3.54	2.20	3.98	5.70	2.00	8.71	4.42	1.80	2.84	....	....	11.88	15.13	....	....	....
Fort McHenry	1.30	3.40	2.70	3.10	4.30	0.60	3.30	4.70	2.40	4.40	3.50	2.30	10.10	8.60	10.30	7.00	36.00
Fort Washington	3.19	4.40	3.47	3.56	6.23	1.56	3.88	5.30	4.57	....	....	....	13.26	10.74	....	....	....
Fort Monroe	1.54	1.90	1.41	2.47	2.08	0.56	5.79	1.93	1.11	0.80	5.25	1.90	5.96	8.28	7.16	5.34	26.74
Fort Moultrie	1.90	2.80	3.30	1.06	2.53	1.55	10.88	2.20	8.10	4.05	4.89	2.39	6.89	14.63	17.04	7.09	45.65
New Smyrna	....	0.42	1.73	0.63	1.14	2.75	7.23	4.47	3.15	2.46	....	....	3.50	14.45	....	....	....
Fort Pierce	5.00	2.20	5.15	2.45	4.55	29.35	2.50	13.50	17.50	10.00	3.41	0.78	12.15	45.35	41.00	7.98	106.48?
Key West Barracks	2.80	0.35	12.06	....	0.94	18.11	2.33	5.02	4.39	1.69	1.08	0.89	....	25.46	7.16	4.04	....
Fort Myers	4.29	1.60	2.52	2.20	1.79	25.58	6.35	10.38	22.10	1.49	0.79	3.55	6.51	42.31	24.47	9.44	82.73
Fort Brooke	4.55	1.60	3.35	0.75	0.30	9.09	4.12	4.67	4.36	1.70	2.90	7.38	4.40	17.88	8.96	13.53	44.77
Fort Meade	1.22	0.55	0.99	0.03	0.15	3.54	4.52	2.39	2.12	0.31	0.78	1.67	1.17	10.45	3.21	3.44	18.27?
Fort Barrancas	4.15	6.80	4.82	0.51	4.00	4.51	3.80	2.95	12.25	....	....	1.25	9.33	11.26	....	12.20	....
Mount Vernon Arsenal	11.18	8.10	16.45?	6.59	5.34	2.00	12.64	8.95	11.09	8.44	2.70	13.09	28.38?	23.59	22.23	32.37	106.57?
East Pascagoula	....	....	....	....	....	....	10.72	3.61	6.83	....	....	..	....	....	....	....	....
New Orleans Barracks	3.20	4.20	7.38	1.88	2.80	1.86	....	....	....	....	....	....	12.06	....	....	....	....
Baton Rouge Barracks	4.48	4.19	4.67	0.57	4.55	2.05	11.18	4.93	....	1.35	....	5.00	9.79	18.16	....	....	....
Fort Towson	1.72	2.90	3.88	4.99	9.09	0.90	5.38	0.49	6.11	3.40	1.97	1.27	17.96	6.77	11.48	5.89	42.10
Fort Washita	0.62	2.67	0.75	1.39	7.30	2.29	4.48	0.95	4.28	3.50	0.80	1.43	9.44	7.72	8.58	4.72	30.46
Fort Smith	0.93	1.99	1.10	0.99	5.01	2.45	2.75	2.58	3.20	0.73	1.85	0.76	7.10	7.78	5.78	3.68	24.34
Fort Gibson	0.82	2.27	1.06	3.52	6.65	1.60	0.76	4 72	1.35	1.13	1.30	0.70	11.23	7.08	3.78	3.79	25.88
Fort Scott	2.68	1.30	0.82	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jefferson Barracks	0.57	1.51	0.85	3.53	3.52	3.19	6.90	7.08	4.20	1.10	2.40	1.23	7.90	17.17	7.70	3.31	36.08
St. Louis Arsenal	0.58	2.13	0.90	3.68	2.85	3.60	4.15	4.95	3.60	1.10	0.85	0.35	7.43	12.70	5.55	3.06	28.74
Newport Barracks	1.30	4.70	1.35	6.33	2.01	1.30	4.40	2.20	8.10	2.50	2.80	1.40	9.69	7.90	13.40	7.40	38.39
Fort Mackinac	0.51	2.05	2.12	0.85	3.55	6.23	3.56	7.81	5.01	1.73	0.93	2.87	6.52	17.60	7.67	5.43	37.22
Fort Brady	0.92	1.19	0.48	0.73	0.74?	3.94	3.27	3.19	2.61	2.16	1.77	0.74	1.95	10.40	6.54	2.85	21.74
Fort Ripley	0.18	0.34	1.06	1.31	1.45	8.72	4.35	2.64	3.31	0.95	1.18	0.63	3.82	15.71	5.44	1.15	26.12
Fort Snelling	0.00	00.1	0.02	0.73	4.08	7.59	1.65	2.57	2.14	0.01	0.56	1.11	4.83	11.81	2.71	1.12	20.47
Fort Ridgely	....	....	....	....	....	....	0.52	4.90	3.23	0.60	1.51	1.84	....	....	5.34	....	....
Fort Dodge	0.20	0.26	1.31	3.92	4.84	....	....	....	....	....	....	....	10.07	....	....	....	....
Fort Leavenworth	0.01	0.30	0.15	2.36	3.39	5.95	3.21	5.01	1.47	0.52	2.07	0.76	5.90	14.17	4.06	1 07	25.20

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1853.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Riley	....	....	....	....	....	....	....	....	....	....	2.71	0.55	....	....	....	....	....
Fort Kearney	0.00	0.02	0.08	6.10	8.46	2.47	8.28	2.21	0.94	0.26	1.00	0.08	14.64	12.96	2.20	0.10	29.90
Fort Laramie	0.08	0.57	1.78	4.53	12.19	4.95	1.86	0.55	2.80	0.68	0.08	0.71	18.50	7.36	3.56	1.36	30.78
Fort Atkinson	0.04	0.49	0.96	3.38	9.34	4.35	....	0.50	....	....	....	....	13.68	....	....	....	....
Fort Arbuckle	0.49	1.88	0.32	1.04	5 31	4.57	3.27	1.30	3.16	3.32	1.05	0.97	6.67	9.14	7.53	3.34	26.68
Fort Worth	1.60	3.30	3.38	4.18	5.94	3.60	5.72	0.60	....	....	....	....	13.50	9.92	....	....	....
Fort Belknap	0.06	1.33	0.96	2.03	6.19	2.74	2.27	0.12	1.77	4.89	1.03	1.75	9.18	5.13	7.69	3.14	25.14
Phantom Hill	0.52	1.30	0.54	0.45	2.85	2.90	1.15	0.03	0.28	2.01	0.23	1.87	3.84	4.08	2.52	3.69	14.13
Fort Chadbourne	0.70	1.25	1.61	0.80	6.48	5.48	2.80	0.85	1.76	2.87	0.19	2.67	8.89	9.13	4.82	4.62	27.46
Fort Graham	1.83	3.61	4.48	2.00	3.35	2.00	2.08	0.32	....	....	....	....	9.83	4.40	....	....	....
Fort Croghan	1.97	6.52	3.07	2.28	3.78	2.52	5.59	0.20	....	....	....	....	9.13	8.31	....	....	....
Fort McKavett	1.75	2.94	1.52	2.00	2 25	5.49	4.03	1.65	....	....	....	....	5.77	11.17	....	....	....
Fort Mason	1.04	2.01	1.52	2.89	1.21	7.58	6.48	1.69	1.14	3.07	0.12	....	5.62	15.75	4.33	....	....
Fort Terrett	0.80	1.54	1.15	0.86	2.80	6.00	3.68	1.83	0.10	4.50	0.04	1.53	4.81	11.51	4.64	3.87	24.83
Fort Merrill	....	....	....	....	....	....	....	5.75	5.86	3.12	1.40	1.18	....	....	10.38	....	....
Fort Ewell	1.30	6.60	1.05	2.25	3.35	9.65	2.22	1.65	5.25	3.32	0.83	1.87	6.65	13.52	9.40	9.77	39.34
Fort Brown	0.00	1.60	0.00	2.20	0.10	1.70	0.00	3.10	8.00	7.75	1.30	0.65	2.30	4.80	17.05	2.25	26.40
Ringgold Barracks	0.70	2.33	0.09	3.79	3.91	1.45	0.15	4.34	2.32	2.40	0.19	0.91	7.79	5.94	4.91	3.94	22.58
Fort McIntosh	0.30	1.99	0.06	4.32	1.57	2.43	4.51	2.22	4.24	0.21	0.01	0.92	5.95	9.16	4.46	3.21	22.78
Fort Inge	2.16	3.58	1.51	2.42	3.28	9.00	4.97	1.59	1.20	6.76	0.15	1.02	7.21	15.56	8.11	6.76	37.64
Fort Duncan	0.13	1.30	0.01	2.10	0.75	10.70	5.28	2.15	4.05	4.10	0.05	2.69	2.86	18.13	8.20	4.12	33.31
Fort Clarke	0.88	1.18	0.65	2.50	1.16	10.21	3.87	2.75	0.13	4.00	0.21	1.60	4.31	16.83	4.34	3.66	29.14
Fort Fillmore	0.04	0.10	0.03	0.01	0.05	0.28	2.80	1.83	1.21	0.90	1.15	0.64	0.09	4.91	3.26	0.78	9.04
Fort Webster	0.40	0.50	0.00	0.00	1.05	1.08	2.55	1.21	1.26	0.40	0.26	0.08	1.05	4.84	1.92	0.98	8.79
Fort Conrad	0.23	0.39	0.38	0.00	0.35	0.74	2.78	1.20	0.53	0.00	0.59	0.67	0.73	4.72	1.12	1.29	7.86
Albuquerque	0.00	0.00	0.01?	0.00	0.04	0.00	2.57	3.80	0.07	0.00	0.31	0.30	0.05	6.37	0.38	0.30	7.10
Santa Fe	0.00	0.69	0.50	0.00	0.98	1.88	7.45	5.42	2.68	0.97	0.43	0.77	1.48	14.75	4.08	1.46	21.77
Fort Union	0.19	0.08	0.77	0.32	0.91	0.11	4.19	3.42	1.59	1.29	0.38	0.18	2.00	7.72	3.26	0.45	13.43
Fort Massachusetts	0.22	0.76	0.94	0.39	1.49	1.11	3.04	1.48	1.25	....	....	....	2.82	5.63	....	....	....
Fort Defiance	0.40	0.08	1.29	0.10	1.44	0.43	1.43	4.65	2.64	0.94	0.22	0.25	2.83	6.51	3.80	0.73	13.87
Fort Yuma	0.00	0.00	0.01	0.00	0.00	0.00	0.25	0.69	0.13	0.00	0.18	0.51	0.01	0.94	0.31	0.52	1.78
San Diego	0.50	0.20	1.52	0.25	2.10	0.05	0.00	0.21	0.00	0.00	1.28	1.77	3.87	0.26	1.28	2.47	7.88
Rancho de Jurupa	0.25	0.67	3.15	0.33	1.14	0.00	0.00	0.18	0.00	0.00	0.44	2.04	4.62	0.18	0.44	2.96	8.20
Fort Miller	1.20	2.35	5.54	2.25	4.79	0.00	0.01	0.00	0.00	0.00	1.26	1.00	12.58	0.01	1.26	4.55	18.40
San Francisco	3.75	1.17	3.72	5.27	0.42	0.00	0.00	0.00	0.23	0.28	2.00	1.86	9.41	0.00	2.51	6.78	18.70
Benicia	2.48	0.44	2.66	3.12	0.36	0.00	0.00	0.00	0.00	0.04	1.71	0.99	6.14	0.00	1.75	3.91	11.80
Fort Reading	4.66	3.18	7.11	4.57	0.73	0.00	0.00	0.24	0.02	0.02	2.52	1.18	12.41	0.24	2.56	9.02	24.23
Fort Jones	3.78	1.38	3.39	1.02	1.17	0.41	0.13	....	....	0.48	4.47	1.19	5.58	....	....	6.35	....
Fort Orford	11.81	6.65	6.45	6.11	1 89	....	....	....	....	....	....	....	14.45	....	....	....	....
Columbia Barracks	9.30	4.21	2.47	1.72	2.33	0.90	0.30	0.39	2.00	3.66	11.57	3.22	6.52	1.59	17.23	16.73	42.07
Dalles of the Columbia	3.02	1.09	0.27	1.29	0.62	0.00	0.08	0.61	1.41	0.24	4.90	0.95	2.18	0.69	6.55	5.06	14.48
Fort Steilacoom	8.14	3.24	2.62	1.57	2.08	3.09	0.33	1.19	4.99	6.93	18.41	4.42	6.27	4.61	30.33	15.80	57.01

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Sullivan (*a*).....	78	165	69	14	18	18	21	6	38	34	13	83
Fort Preble (*a*).......	121	122	71	23	66	15	5	16	25	30	19	59
Fort Constitution (*b*).	123	150	66	18	29	18	24	14	18	46	53	62
Fort Independence...	197	157	81	21	32	64	13	31	5	62	45	52
Fort Adams (*a*)......	153	120	68	10	74	15	20	12	82	16	34	16
Fort Trumbull (*a*)....	129	144	86	15	1	67	1	32	3	71	10	91
Fort Hamilton.......	211	154	105	14	38	46	11	34	28	64	26	108
Fort Columbus.......	233	132	83	13	26	56	14	37	23	79	46	66
West Point..........	215	151	109	28	105	7	4	27	97	20	12	71
Watervliet Arsenal..	234	131	92	26	28	8	1	17	86	31	112	47
Fort Niagara........	200	165	75	33	31	35	37	14	56	38	96	41
Alleghany Arsenal...	172	193	109	31	43	41	18	12	33	52	40	33
Fort McHenry.......	205	160	83	11	77	41	13	26	18	39	65	46
Fort Washington (*b*).	142	131	100	3	28	17	8	22	42	50	26	54
Fort Monroe.........	203	162	99	5	19	71	18	29	24	103	13	59
Fort Moultrie........	243	122	80	1	59	75	26	46	34	70	29	28
New Smyrna (*c*).....	225	79	96	0	17	46	69	34	18	24	37	17
Fort Pierce..........	267	98	68	0	59	46	34	59	83	8	43	23
Key West Barracks ..	253	112	93	0	96	52	89	45	31	12	9	17
Fort Myers..........	258	107	111	0	43	46	60	28	26	23	49	29
Fort Brooke.........	241	124	87	0	12	76	70	45	35	32	26	43
Fort Meade	213	152	119	0	54	56	83	38	32	23	46	16
Mt. Vernon Arsenal..	256	109	86	2	52	76	28	61	33	18	18	59
Baton Rouge (*d*).....	184	121	85	1	50	32	81	25	28	22	39	23
Fort Towson........	192	173	87	4	79	48	114	25	52	2	8	7
Fort Washita........	166	199	68	9	54	16	62	41	124	25	29	11
Fort Smith..........	220	145	64	3	19	32	81	25	28	22	39	23
Fort Gibson.........	204	161	79	8	62	15	12	48	91	6	4	14
Jefferson Barracks...	237	128	55	0	20	17	42	21	127	27	80	16
St. Louis Arsenal....	229	136	51	8	55	23	39	11	46	40	50	22
Newport Barracks...	200	165	81	9	35	38	21	39	91	70	20	39
Fort Mackinac.......	172	193	67	32	34	23	21	44	43	27	75	78
Fort Brady..........	195	170	74	71	29	16	53	19	46	41	49	17
Fort Ripley	217	148	58	32	37	51	9	44	68	48	37	41
Fort Snelling........	250	115	59	29	26	41	15	63	43	63	26	49
Fort Ridgely (*e*)	83	101	37	14	28	15	28	28	77	19	25	46
Fort Dodge (*f*)......	74	77	28	15	22	19	14	12	4	14	9	46
Fort Leavenworth....	210	155	60	11	5	33	7	45	17	101	26	101
Fort Kearney........	230	135	55	18	32	15	28	28	77	24	25	46
Fort Laramie........	217	148	57	24	48	38	26	8	2	6	29	63
Fort Atkinson (*b*)....	218	35	21	1	29	24	26	55	24	28	10	22
Fort Arbuckle.......	298	67	68	4	66	24	19	49	106	44	8	16
Fort Worth (*a*)......	124	119	59	3	46	21	14	68	52	9	8	20
Fort Belknap........	261	104	52	4	53	21	11	58	73	20	13	15
Phantom Hill........	266	99	44	6	39	25	33	33	142	41	36	11

OBSERVATIONS FOR 1853.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
71	140	70	190	84	146	25	62	153	370	136	320	52	95	331	695
264	736	59	155	22	58	63	163	99	267	119	316	77	197	239	578
117	242	71	203	96	270	57	152	74	199	182	388	211	512	247	645
129	407	258	910	53	138	124	322	18	33	247	701	181	566	209	701
296	1075	59	251	82	293	47	170	329	976	62	187	135	381	65	254
5	7	267	652	6	9	128	223	10	17	285	462	40	59	365	740
154	207	184	255	43	50	134	195	112	138	255	393	104	175	433	906
106	179	226	442	54	87	142	238	93	182	318	699	183	370	266	590
420	1382	26	71	17	35	107	275	389	993	79	157	47	111	283	1001
114	334	31	76	6	13	67	178	346	985	124	330	447	1206	188	563
122	347	142	304	148	259	58	90	224	429	152	289	386	844	163	461
173	276	165	266	72	97	48	74	131	327	208	558	162	482	133	355
307	588	166	375	52	99	103	235	74	158	155	372	262	519	186	514
112	268	70	120	33	53	88	170	168	305	202	413	105	211	217	545
78	234	283	706	73	158	116	243	94	198	412	1005	52	132	235	587
235	606	300	801	106	215	182	459	136	400	281	759	116	261	114	264
66	234	183	574	278	677	136	362	73	136	97	203	149	286	68	213
235	413	183	486	136	383	237	588	332	495	31	74	173	217	91	238
385	1484	210	698	357	1216	181	520	123	363	46	137	37	140	67	258
174	249	183	438	242	506	112	233	102	207	91	205	194	471	117	322
47	76	302	586	280	480	179	363	140	273	127	309	102	191	173	358
215	310	225	311	331	445	154	197	127	163	93	131	184	241	62	114
209	418	305	473	113	169	244	388	133	207	73	132	74	133	238	516
200	379	127	213	323	507	99	165	111	191	90	173	156	295	91	180
316	620	191	291	458	804	101	193	210	465	9	21	33	69	28	33
218	676	66	191	250	694	162	487	495	1488	100	303	116	261	45	155
75	132	127	213	323	507	99	165	111	191	90	173	156	295	91	180
247	382	61	87	47	68	193	294	364	636	26	35	15	28	58	101
79	172	68	261	170	293	83	181	510	978	108	312	322	599	58	160
221	472	92	182	158	280	46	66	186	330	160	371	201	453	86	223
141	449	152	397	82	183	157	274	363	586	279	626	81	256	158	495
137	332	71	218	86	265	175	583	172	380	107	364	302	808	311	986
117	412	63	161	214	482	78	180	185	427	165	466	197	617	68	235
149	354	206	557	36	75	177	478	272	547	191	478	150	435	165	460
103	229	164	292	62	126	251	522	172	352	253	564	106	277	195	566
112	317	61	164	114	210	113	288	308	768	76	203	100	180	185	488
87	208	77	154	56	209	47	139	17	56	56	195	37	88	183	526
20	46	133	202	27	50	182	308	70	149	405	748	103	185	406	636
129	368	61	164	114	210	113	288	308	768	96	203	100	180	185	488
193	356	151	366	105	342	32	107	8	28	22	77	118	511	252	850
116	357	96	236	104	244	221	584	98	206	113	256	41	97	87	262
266	328	97	104	76	108	197	279	423	604	175	250	32	39	63	71
186	426	84	191	56	104	273	787	210	798	34	35	32	81	80	190
212	432	82	168	44	65	234	560	292	479	80	163	52	75	61	159
156	402	101	227	133	301	133	311	569	1742	163	447	142	254	44	65

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Chadbourne	246	119	62	5	75	24	7	20	127	15	13	18
Fort Graham (*a*)	150	93	42	2	23	26	21	55	55	21	14	10
Fort Croghan (*a*)	126	117	53	3	31	24	17	74	45	22	9	11
Fort McKavett (*a*)	170	73	39	4	21	11	10	52	109	9	10	17
Fort Mason (*g*)	217	117	59	5	28	17	14	39	105	40	10	26
Fort Terrett	262	103	55	7	3	31	62	190	1	9	36	17
Fort Merrill (*h*)	95	58	34	0	19	15	8	27	18	6	11	6
Fort Ewell (*i*)	229	105	69	1	26	23	27	107	18	10	5	8
Fort Brown	230	135	49	0	13	37	68	87	39	56	22	31
Ringgold Barracks	183	182	85	0	41	28	28	110	114	2	5	19
Fort McIntosh	238	127	68	0	12	54	16	209	3	5	3	42
Fort Inge	251	114	59	1	18	67	157	58	1	2	4	24
Fort Duncan	274	91	54	1	32	18	155	84	9	9	4	33
Fort Clarke	173	192	52	2	43	9	30	165	55	4	13	21
Fort Fillmore	332	33	41	2	10	24	17	35	35	64	16	24
Fort Webster (*k*)	335	10	26	5	41	9	4	6	14	34	92	134
Fort Conrad	309	56	41	6	48	60	22	12	37	49	81	28
Albuquerque	307	58	26	4	18	18	60	19	65	4	85	7
Santa Fe	307	58	53	14	44	46	26	17	19	21	51	45
Fort Union	291	74	55	18	91	51	13	20	18	37	36	68
Fort Massachusetts (*b*)	210	62	41	17	66	3	9	15	52	56	33	35
Fort Defiance (*i*)	297	35	46	13	25	15	7	13	19	97	73	46
Fort Yuma	297	68	19	0	69	29	11	31	45	32	51	79
San Diego	266	99	32	0	3	31	69	36	47	90	70	12
Fort Jurupa	308	57	25	0	6	58	15	15	1	197	19	47
Fort Miller	317	48	32	0	9	17	97	61	24	22	64	19
San Francisco	184	176	64	0	19	22	9	17	18	78	110	76
Benicia	228	137	49	0	6	12	28	9	13	22	236	1
Fort Reading	276	89	63	0	46	3	4	5	49	7	4	10
Fort Jones (*l*)	181	123	51	14	25	2	12	7	34	11	34	14
Fort Orford (*f*)	53	98	71	1	36	6	1	63	3	1	1	29
Columbia Barracks	124	241	110	3	32	10	82	43	12	8	80	60
Dalles of Columbia	237	128	59	11	8	15	30	12	22	140	104	25
Fort Steilacoom	162	203	131	3	16	6	19	47	76	96	47	36

(*a*) First eight months.
(*b*) First nine months.
(*c*) First ten months.
(*d*) Except September and November.
(*e*) Last six months.
(*f*) First five months.
(*g*) December excepted.
(*h*) Last five months.
(*i*) January not observed.
(*k*) Twenty days of December not observed.
(*l*) Winds for first seven months; weather for ten months, omitting August and September.

OBSERVATIONS FOR 1853.

WINDS.

No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
301	393	97	136	30	40	81	112	508	583	61	82	53	87	71	112
90	214	105	214	84	174	222	469	219	501	86	251	54	119	39	86
126	464	95	286	67	170	295	902	180	521	88	250	36	101	42	119
85	180	42	57	39	48	208	373	437	1004	36	57	42	53	67	142
113	360	69	150	55	117	159	350	421	1175	159	443	40	90	104	288
10	28	124	209	247	346	759	1337	4	5	37	47	144	283	69	130
76	131	61	116	32	63	110	210	71	134	25	41	44	50	26	51
106	219	91	209	107	191	430	922	74	202	42	127	20	36	34	70
52	117	147	333	272	609	348	849	157	392	225	513	88	210	124	305
165	411	111	235	111	234	439	1064	454	924	10	10	19	23	77	156
48	102	217	370	64	97	837	1600	13	19	21	28	14	18	168	336
71	125	269	449	630	1347	234	493	6	9	8	13	14	51	95	222
130	404	71	157	620	1397	334	988	34	85	37	97	18	30	132	337
174	469	38	98	122	260	662	1641	219	496	17	33	53	91	84	195
40	128	98	310	69	153	139	364	141	322	255	733	65	213	98	330
166	260	35	54	18	29	25	42	54	96	135	223	367	567	536	939
192	394	239	717	89	175	49	85	150	351	195	551	326	612	112	186
71	127	72	157	241	392	77	122	262	334	18	36	340	595	28	54
174	313	186	440	103	227	69	179	78	152	84	161	204	397	181	411
365	511	202	325	52	98	79	167	73	133	149	404	146	363	271	694
265	827	13	39	38	110	60	179	209	651	224	553	133	350	140	447
101	174	61	101	29	64	52	86	74	152	390	820	291	613	185	327
278	559	118	175	46	65	122	318	182	532	129	296	204	476	314	874
10	10	124	131	275	305	143	163	190	245	360	707	281	440	48	60
23	79	231	364	59	96	59	94	4	7	788	1566	75	110	187	530
35	53	58	80	387	615	246	444	95	173	90	159	256	411	77	147
74	223	88	238	36	78	68	190	72	257	312	1007	440	1433	303	1112
22	43	48	82	111	274	38	86	52	132	89	263	944	3444	5	11
184	324	10	11	16	20	20	29	196	337	30	41	18	30	41	59
98	143	7	8	49	73	29	56	134	240	44	74	135	284	85	128
145	232	23	35	4	5	251	823	13	39	6	9	3	5	118	272
127	273	39	73	327	764	172	388	48	96	31	63	319	663	242	473
33	66	60	94	119	194	46	66	89	131	560	909	418	902	102	270
63	213	26	78	76	144	189	400	306	817	384	1153	190	549	145	392

MONTH OF JANUARY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	22.45	24.80	29.29	25.54	25.52	49	—2	2.35	2.75	23	49	11	21	1	1
Fort Hamilton	28.00	31.38	35.83	20.74	31.49	50	12	18.5	19.5	4	4	4	4	0	0
Fort Columbus	26.38	28.45	31.77	28.25	28.71	50	11	21.3	17.7	4	12	4	10	6	12
West Point	24.70	28.16	31.25	27.90	28.00	51	4	23.0	24.0	30	85	3	8	0	0
Watervliet Arsenal	17.83	21.66	24.96	23.00	21.86	48	—10	26.1	31.9	9	27	0	0	0	0
Fort Niagara	23.42	24.52	27.58	24.62	25.04	48	6	23.0	19.0	2	2	12	41	10	21
Alleghany Arsenal	24.00	27.87	34.77	29.67	29.08	64	5	34.9	24.1	7	11	16	21	6	6
Fort Delaware	28.90	32.87	36.65	31.10	32.38	54	15	21.6	17.4	6	7	20	29	6	9
Fort McHenry	28.51	33.09	39.61	33.25	33.61	61	14	27.4	19.6	38	76	18	37	3	3
Fort Monroe	38.39	42.26	44.52	40.70	41.47	60	24	18.5	17.5	18	43	20	37	4	9
Fort Moultrie	46.77	50.77	56.58	49.19	50.83	70	31	19.2	19.8	21	67	29	94	0	0
Fort Pierce	63.80	68.64	73.58	65.64	67.91	83	40	15.1	27.9	24	101	21	79	7	24
Key West Barracks	69.16	71.71	74.22	71.90	71.75	80	58	8.3	13.7	39	150	21	67	38	116
Fort Myers	60.87	66.22	75.16	68.00	67.56	84	47	16.4	20.6	29	75	16	37	5	6
Fort Brooke	56.83	62.19	71.16	61.58	62.94	80	40	17.1	22.9	0	0	55	149	3	7
Fort Meade	57.65	62.06	71.74	63.55	63.75	81	40	17.3	23.7	50	109	21	38	24	46
Fort Barrancas	49.03	54.58	62.48	52.77	54.71	76	30	11.3	24.7	38	86	12	27	10	22
Mount Vernon Arsenal	46.00	49.51	60.25	51.13	51.52	76	25	24.5	26.5	16	40	33	66	0	0
Baton Rouge Barracks	47.48	50.91	62.67	52.67	53.43	81	20	27.6	33.4	19	49	10	27	46	117
Fort Towson	30.40	32.02	45.05	36.02	36.32	70	5	33.7	31.3	55	110	3	4	43	75
Fort Washita	29.48	33.70	45.74	38.16	36.76	71	4	34.2	32.8	24	103	4	11	17	42
Fort Smith	28.77	30.41	41.93	34.58	33.92	68	5	34.1	28.9	11	30	17	35	8	12
Fort Gibson	26.80	32.55	42.13	33.42	33.72	69	1	35.3	32.7	33	81	0	0	6	7
Jefferson Barracks	23.70	28.06	33.51	28.64	28.48	65	—3	36.5	31.5	9	30	5	18	7	13
St. Louis Arsenal	18.68	25.51	32.84	24.87	25.47	60	—3	34.5	28.5	26	51	6	11	5	6
Newport Barracks	28.54	30.22	35.80	32.45	31.75	54	—1	22.2	32.8	17	79	0	0	14	31
Fort Mackinac	9.80	13.00	16.90	12.64	13.09	34	—15	10.9	28.1	8	15	6	9	3	5
Fort Brady	5.27	13.77	15.61	9.50	11.02	39	—27	28.0	38.0	21	62	14	36	30	69
Fort Snelling	—4.77	—1.74	9.22	1.48	1.30	45	—36	43.7	37.3	3	8	5	13	3	7
Fort Ripley	—8.93	—6.06	8.29	—1.70	—2.10	48	—50*	50.1	47.9	12	26	12	30	1	1
Fort Ridgely	0.22	5.87	11.70	4.93	5.68	45	—24	39.3	29.7	6	33	6	20	12	42
Fort Leavenworth	17.06	22.06	34.09	25.48	24.68	67	—8	32.3	32.7	0	0	7	16	0	0
Fort Riley	16.77	23.59	34.62	23.72	24.67	62	—10	37.3	34.7	15	45	16	50	12	23
Fort Kearney	9.19	15.45	33.45	14.93	18.26	70	—16	51.7	34.3	17	66	6	20	9	26
Fort Laramie	18.61	20.38	29.09	22.32	22.60	61	—21	38.4	43.6	18	39	1	2	6	18
Fort Arbuckle	27.80	34.58	46.90	35.35	36.16	71	—1	34.8	37.2	37	61	6	6	6	7
Fort Belknap	31.96	38.61	52.87	40.61	41.00	77	7	36.0	34.0	35	130	11	43	0	0
Phantom Hill	30.09	37.83	54.35	39.48	40.44	74	—2	33.5	42.5	35	71	3	8	2	2
Fort Chadbourne	32.12	35.16	45.06	42.58	38.73	60	6	21.3	32.7	10	15	2	3	0	0
Fort McKavett	35.03	42.71	52.87	40.97	42.89	65	11	22.1	31.9	29	130	2	2	4	10
Fort Merrill	45.50	55.26	64.25	54.22	54.88	96	22	41.1	32.9	32	65	0	0	2	5
Fort Ewell	41.32	51.35	62.70	46.51	50.47	86	19	35.5	31.5	21	54	11	21	5	8
Fort Brown	52.77	59.74	65.51	59.35	59.34	80	30	20.7	29.3	2	4	11	24	15	30
Ringgold Barracks	47.38	53.35	65.12	57.03	55.72	87	29	31.3	26.7	40	78	6	7	8	11
Fort McIntosh	42.80	52.32	63.54	52.41	53.02	82	24	29.0	29.0	25	60	18	25	15	15
Fort Inge	36.32	46.03	62.32	44.29	47.24	78	20	30.7	27.3	30	68	24	31	54	76
Fort Duncan	39.22	48.29	64.26	49.22	50.25	73	20	22.7	30.3	1	3	2	5	0	0

* Mercury frozen in the thermometer.

MONTH OF JANUARY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
3	8	2	4	18	39	20	43	38	95	3.74	3.77	4.09	3.74	3.83	15	16	3	8	2.50	
0	0	0	0	42	50	1	1	69	114	4.51	4.90	4.45	4.54	4.60	14	17	6	5	3.05	
9	15	6	8	34	76	19	47	41	122	4.16	4.12	3.83	4.87	4.24	14	17	5	4	2.60	
7	18	38	91	11	32	4	16	25	118	4.32	4.41	4.83	5.64	4.80	15	16	4	7	3.52	
7	20	30	104	11	29	7	22	15	59	9.60	6.66	6.81	6.66	7.43	17	14	3	5	3.50	Clearness inaccurate
16	23	16	20	37	78	15	21	12	56	0.42	0.84	0.58	0.10	0.50	5	26	4	10	1.63	" "
8	17	23	50	24	77	18	81	7	22	4.00	4.25	4.09	3.48	3.96	13	18	7	6	2.23	
4	10	2	2	25	48	1	1	38	97	3.00	4.90	5.10	3.60	4.15	15	16	9	2	2.30	
3	10	6	16	4	11	31	67	9	16	3.80	3.41	3.90	4.45	3.90	13	18	8	1	4.40	
2	8	9	22	23	51	17	30	29	91	4.77	5.58	5.09	5.61	5.26	14	17	9	2	4.00	
3	4	11	42	26	75	9	27	16	52	4.06	4.00	4.84	5.58	4.62	16	15	12	0	3.80	
30	85	5	10	20	66	2	4	15	45	1.58	2.38	2.64	4.70	2.82	10	21	12	0	3.55	
8	23	9	29	1	2	0	0	3	10	4.84	5.03	5.19	7.03	5.52	20	11	5	0	1.77	
12	26	8	24	8	18	5	6	7	21	4.87	4.69	5.38	8.00	5.74	17	14	4	0	1.15	
17	42	3	6	26	72	0	0	18	49	2.96	3.83	4.51	6.19	4.37	13	18	5	0	3.83	
9	19	3	8	3	8	12	35	8	16	1.58	2.55	3.87	5.55	3.39	11	20	10	0	1.30	
15	28	8	21	11	24	6	12	22	54	0.93	2.80	3.09	2.61	2.36	8	23	6	0	3.45	
27	50	11	30	11	29	3	7	16	46	3.38	4.51	4.83	5.45	4.54	12	19	11	0	11.01	
10	23	8	16	10	26	16	44	4	11	2.38	2.38	2.22	3.25	2.56	8	23	5	0	2.85	
0	0	10	24	0	0	3	4	2	3	3.00	3.10	3.70	6.00	3.95	13	18	3	3	1.01	
14	38	30	109	14	49	13	27	6	28	2.32	2.90	3.54	5.58	3.59	11	20	2	2	0.01*	
18	34	1	1	12	31	16	37	15	42	4.93	4.38	4.31	4.38	5.00	15	16	2	5	1.37	
13	13	26	69	5	8	0	0	3	3	4.16	4.18	4.00	5.71	4.50	16	15	3	3	0.30	
4	9	46	94	3	13	16	36	4	16	2.12	3.06	3.80	5.51	3.62	14	17	2	2	1.90	
3	3	12	22	16	32	14	23	25	65	8.80	8.63	8.42	2.92	7.21	18	13	1	2	0.65	Therm. protected.
0	0	48	102	7	16	36	134	0	0	1.58	2.45	2.54	3.70	2.57	10	21	2	3	3.20	
15	51	18	21	0	0	1	3	64	244	3.45	3.74	3.41	3.09	3.42	12	19	0	12	2.59	
10	22	8	20	17	69	4	17	2	9	3.13	3.50	2.50	2.19	2.83	12	19	0	13	2.49	
23	48	9	17	40	82	17	54	16	41	5.80	5.48	6.19	6.16	5.91	19	12	0	10	0.72	
9	23	33	59	11	19	18	48	14	40	4.90	4.83	4.83	5.25	4.95	17	14	0	12	0.67	
19	39	6	12	15	46	33	120	25	137	3.48	3.19	3.51	4.80	3.74	13	18	0	11	1.20	
19	37	0	0	27	63	11	20	50	139	3.51	4.09	4.58	5.00	4.29	14	17	1	3	0.04	
6	12	22	37	13	30	24	51	7	31	6.22	5.93	6.03	6.06	6.06	18	13	0	2	0.00	
1	3	6	13	14	32	22	49	14	41	5.12	5.74	5.29	6.61	5.69	22	0	0	4	0.23	
0	0	0	0	0	0	69	300	4	6	7.64	8.87	9.06	3.00	7.14	26	5	0	8	0.18	
12	13	18	31	24	45	8	14	10	11	6.77	7.35	8.32	7.70	7.54	23	8	1	1	0.01*	
41	120	10	39	18	58	3	6	6	19	3.38	4.64	5.03	6.74	4.94	17	14	0	3	0.11	
1	1	59	102	9	14	4	5	8	9	5.58	6.29	7.35	7.61	6.71	23	8	0	0	0.00	
8	9	0	0	7	10	0	0	16	26	5.03	6.19	7.25	8.70	6.79	23	8	2*	0	0.00	* "Heavy mist."
6	16	36	93	16	34	15	50	4	11	4.55	5.29	5.74	6.68	5.56	21	10	2†	0	0.01	†Slight rain, not
0	0	36	62	4	4	36	49	4	11	2.42	5.30	5.68	5.26	4.66	17	14	2	0	0.11	[measured
4	6	10	23	0	0	4	5	4	8	4.22	4.90	6.87	6.03	5.51	14	14	2	0	0.22	
10	24	8	18	36	89	5	7	38	90	4.51	3.96	4.03	5.96	4.61	16	15	2	0	0.45	
30	58	8	14	9	9	9	11	9	19	3.35	3.93	4.54	4.22	4.01	15	16	4	0	0.70	
22	38	24	45	1	2	2	2	11	33	5.74	4.67	6.19	5.80	5.10	18	13	2	0	0.05	
8	13	0	0	0	0	0	0	2	5	4.35	4.74	6.22	6.80	5.53	21	10	1	0	0.20	
58	122	0	0	3	4	1	1	56	139	2.55	3.84	5.74	6.16	4.57	17	14	2	0	0.05	

* Rain and snow very light; no measurement.

MONTH OF JANUARY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Clarke	40.83	49.09	60.54	43.18	48.41	79	17	30.6	31.4	16	47	12	26	12	27
Fort Fillmore	33.29	47.35	67.64	46.19	48.62	78	20	29.4	28.6	16	35	11	25	0	0
Fort Thorne	24.24	42.22	62.68	38.10	41.81	75	8	33.2	33.8	22	43	5	6	0	0
Fort Conrad	23.93	33.51	52.45	37.41	36.82	70	5	33.2	31.8	36	109	8	27	4	8
Albuquerque	25.41	35.51	50.90	34.00	36.46	63	5	26.5	31.5	44	71	4	6	4	7
Santa Fé	15.93	28.54	41.61	27.96	28.51	52	— 6	23.5	34.5	15	32	22	61	6	13
Fort Union	23.19	34.19	42.29	29.61	32.32	54	1	21.7	31.3	37	59	13	23	2	4
Cantonment Burgoine	11.50	23.75	45.50	23.20	26.90	64	—13	37.1	39.9	35	84	21	70	0	0
Fort Defiance	14.77	21.84	36.81	24.00	24.35	49	—20	24.6	44.4	15	23	2	2	2	2
Fort Yuma	45.61	52.29	64.48	54.29	54.17	79	26	24.8	28.2	43	163	11	18	0	0
San Diego	42.67	51.51	63.96	49.48	51.90	78	31	26.1	20.9	6	6	14	17	31	36
Fort Jurupa	39.09	52.45	61.48	48.25	50.32	79	28	28.7	22.3	13	43	77	204	6	13
Fort Miller	36.77	44.74	51.19	41.70	43.60	64	23	20.4	20.6	6	8	10	13	46	81
San Francisco	42.96	48.45	54.22	46.09	47.93	68	27	20.1	20.9	23	97	31	96	9	27
Benicia Barracks	37.19	40.32	51.06	41.80	42.59	66	19	23.4	23.6	10	31	26	74	27	40
Fort Reading	34.39	38.30	48.41	38.80	40.00	71	15	31.0	25.0	20	51	0	0	0	0
Fort Humboldt	35.22	38.64	49.54	39.93	40.83	58	16	17.2	24.8	10	31	4	4	9	16
Fort Jones	23.75	28.81	43.34	29.53	31.36	49	5	17.6	26.4	5	8	2	4	0	0
Fort Dalles	17.16	20.67	29.35	20.74	21.98	50	—15	28.0	37.0	7	13	28	39	0	0
Fort Steilacoom	24.64	29.96	37.80	30.03	30.61	58	— 1	27.4	31.6	16	74	1	6	42	100

MONTH OF JANUARY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
49	127	3	8	2	3	0	0	15	49	3.32	4.41	6.22	6.90	5.21	18	13	0	0	0.00	
7	19	1	2	23	71	11	36	7	15	9.32	9.35	9.06	9.28	9.25	31	0 ?	0	0	0.00	
0	0	2	3	2	5	47	118	26	44	9.10	9.06	9.03	9.10	9.07	29	0	1*	1	0.00	
2	3	12	42	6	39	28	73	23	47	7.09	6.90	6.58	6.58	6.79	24	7	0	0	0.00	
3	4	42	81	6	10	6	15	4	5	7.67	7.19	7.06	7.77	7.42	27	4	1	2	0.13	Therm. protected.
10	26	10	25	13	34	13	30	17	45	5.38	7.00	7.29	6.80	6.62	25	6	0	4	0.36	
5	12	3	6	13	48	13	51	37	143	6.38	6.00	5.70	6.83	6.23	22	9	0	2	0.07	
14	44	23	66	17	40	0	0	15	42	1.54	2.52	1.93	1.61	1.90	4	27	0	4	....	
3	8	20	44	17	44	36	44	28	43	6.87	6.87	6.67	6.90	6.83	25	6	0	8	2.20	
9	20	9	31	1	2	7	24	44	230	5.29	5.09	4.51	5.99	5.22	17	14	0	0	0.00	
14	15	15	21	19	34	20	38	4	4	5.74	5.74	5.67	6.45	5.90	20	11	6	0	1.46	
0	0	0	0	18	44	0	0	8	32	6.58	6.16	6.29	7.32	6.59	24	7	6	0	1.64	
19	28	3	6	4	5	12	13	4	6	7.12	6.96	5.96	7.83	6.97	20	11	8	0	2.26	
9	28	6	13	26	91	11	30	9	29	4.96	4.10	5.70	5.64	5.10	18	13	6	0	3.04	
13	31	0	0	22	69	0	0	0	0	4.58	5.00	5.61	7.09	5.57	18	13	7	0	2.06	
0	0	8	13	0	0	2	2	0	0	4.89	5.13	5.22	5.13	5.09	17	14	5	1	2.90	
3	6	0	0	0	0	1	1	9	29	5.16	6.25	7.54	7.35	6.57	20	11	10	2	4.83	
1	5	4	12	0	0	1	2	1	3	1.75	1.93	1.93	5.00	2.65	4	11	2	0	0.54	First 15 days.
6	6	5	7	68	107	5	8	2	3	2.80	3.25	4.80	5.45	4.07	13	18	6	6	2.79	
3	7	29	101	27	100	1	3	0	0	3.32	3.45	4.74	5.03	4.14	14	17	9	4	8.69	

* Slight rain and snow, first two days not observed.

MONTH OF FEBRUARY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	21.85	24.07	28.57	25.50	25.00	44	4	19.0	21.0	34	98	12	34	0	0
Fort Hamilton	26.82	30.35	35.00	31.64	30.95	48	15	17.1	15.9	6	6	18	29	0	0
Fort Columbus	25.32	26.82	31.64	28.92	28.17	46	14	17.8	14.2	2	3	35	89	2	2
West Point	22.89	28.14	31.21	27.35	27.40	47	7	19.6	20.4	41	189	0	0	2	5
Watervliet Arsenal	15.85	18.60	22.45	21.28	19.54	38	— 4	18.5	23.5	15	45	3	11	0	0
Fort Niagara	21.03	22.90	27.35	21.63	23.23	45	5	21.8	18.2	10	26	25	44	3	3
Alleghany Arsenal	28.25	32.28	39.67	33.75	33.49	58	8	24.5	25.5	6	10	18	19	5	6
Fort Delaware	30.10	33.06	39.04	36.02	34.56	60	19	25.4	15.6	6	13	22	36	4	6
Fort McHenry	29.60	36.67	44.10	35.50	36.47	62	14	25.5	22.5	25	57	13	42	12	29
Fort Monroe	40.07	43.75	47.50	43.96	43.82	61	28	17.2	15.8	18	41	10	25	9	17
Fort Moultrie	48.00	53.28	59.32	51.78	53.09	68	30	14.9	23.1	11	29	31	114	3	9
Fort Pierce	61.96	68.64	73.32	65.39	67.33	87	50	19.7	17.3	6	24	29	100	8	30
Key West	69.21	71.96	74.53	72.10	71.95	81	64	9.1	7.9	39	162	16	62	22	75
Fort Myers	60.03	68.42	75.28	65.82	67.39	84	47	16.6	20.4	26	63	14	26	9	16
Fort Brooke	55.64	61.85	70.42	61.43	62.36	79	43	16.6	19.4	1	2	49	140	1	2
Fort Meade	55.79	63.14	71.68	62.71	63.33	78	40	14.7	23.3	20	46	18	46	20	45
Fort Barrancas	48.11	55.07	63.43	51.61	54.56	76	32	21.4	22.6	26	45	13	27	6	11
Mount Vernon Arsenal	42.42	53.82	64.40	52.10	53.18	74	28	20.8	25.2	17	34	28	55	1	2
Baton Rouge	48.42	54.10	67.25	56.16	56.48	77	31	20.5	25.5	5	15	8	20	55	134
Fort Towson	40.86	47.07	60.39	48.82	49.29	73	18	23.7	31.3	38	69	1	3	40	76
Fort Washita	41.19	46.77	60.60	47.21	48.94	76	17	27.1	31.9	9	36	3	14	13	45
Fort Smith	39.50	44.17	55.71	48.64	47.01	70	19	23.0	28.0	11	24	4	8	8	13
Fort Gibson	38.64	44.39	55.89	46.60	46.38	75	12	28.6	34.4	19	49	2	2	1	1
Jefferson Barracks	34.21	38.17	46.67	41.10	40.04	70	18	30.0	22.0	10	24	4	14	9	24
St. Louis Arsenal	31.21	34.75	45.00	35.68	36.66	64	15	27.3	21.7	24	54	7	14	16	24
Newport Barracks	35.21	39.32	44.32	39.57	39.60	60	20	20.4	19.6	15	71	1	1	22	57
Fort Mackinac	11.07	15.60	22.85	14.03	15.89	38	—10	22.1	25.9	25	42	12	26	21	87
Fort Brady	4.78	20.14	17.46	9.57	12.98	34	—28	21.0	41.0	11	30	12	32	15	48
Fort Snelling	6.75	14.25	24.75	15.85	15.40	45	—20	29.6	35.4	12	38	5	9	6	14
Fort Ripley	2.14	9.17	22.42	9.78	10.88	44	—26	33.1	36.9	24	57	11	29	2	2
Fort Ridgely	11.46	19.75	27.92	18.82	19.49	53	—17	33.5	36.5	14	42	7	30	8	23
Fort Leavenworth	28.17	34.78	45.03	34.14	35.53	48	6	12.5	29.5	0	0	7	15	1	2
Fort Riley	30.41	37.11	47.91	36.51	38.00	63	8	25.0	30.0	1	4	8	31	21	38
Fort Kearney	20.21	29.14	44.39	27.75	30.37	66	2	35.6	28.4	19	61	6	19	3	5
Fort Laramie	30.96	33.14	44.60	36.37	36.40	62	8	25.6	28.4	13	17	1	3	5	17
Fort Arbuckle	38.07	45.71	59.57	47.64	47.75	76	11	28.3	36.7	20	33	2	5	3	3
Fort Belknap	40.67	52.92	63.78	51.96	52.33	80	14	27.7	38.3	20	62	1	6	0	0
Phantom Hill	38.71	49.71	64.28	49.03	50.43	82	12	31.6	38.4	17	53	0	0	4	8
Fort Chadbourne	36.54	47.42	57.78	46.00	46.94	80	12	33.1	34.9	3	11	2	4	0	0
Fort McKavett	44.36	48.93	61.46	51.32	51.52	76	24	24.5	27.5	15	55	6	20	14	35
Fort Merrill	50.80	61.70	66.70	59.50	59.73	88	31	28.3	28.7	27	57	1	1	8	8
Fort Ewell	47.67	61.85	70.78	52.17	58.12	84	27	25.9	31.1	8	23	4	5	6	12
Fort Brown	52.32	66.78	69.57	61.14	62.45	84	40	21.5	22.5	14	29	19	40	12	23
Ringgold Barracks	54.53	61.78	71.92	61.28	62.38	83	31	20.6	31.4	36	74	9	11	11	12
Fort McIntosh	50.32	59.46	71.32	59.00	60.02	84	31	24.0	29.0	7	14	13	23	5	7
Fort Duncan	47.07	57.32	71.61	56.79	58.20	85	27	26.8	31.2	0	0	2	4	1	3
Fort Inge	46.25	54.89	68.89	54.14	56.04	82	28	26.0	28.0	21	39	21	25	52	86

MONTH OF FEBRUARY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am' in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
9	23	4	8	3	5	16	42	30	78	3.32	3.78	4.60	4.67	4.09	12	16	7	7	3.36	
3	3	0	0	32	54	0	0	53	100	5.00	5.14	5.57	6.17	5.47	16	12	5	6	4.45	
7	14	0	0	24	40	13	21	26	82	4.71	4.78	4.39	6.78	5.16	15	13	4	4	4.00*	
8	22	30	66	5	10	0	0	24	84	4.60	4.00	4.92	6.03	4.89	16	12	4	9	5.04	[too high.
1	3	21	55	12	35	15	38	19	65	6.70	6.74	8.07	7.25	7.19	20	8	4	4	2.77	Scale of clearness
11	11	6	12	27	78	13	40	9	28	1.60	1.25	2.14	0.57	1.39	10	18	4	5	2.52	Scale of clearness
1	1	9	20	27	78	11	38	14	39	4.21	4.14	4.14	3.57	4.01	13	15	5	6	2.33	[too low.
12	24	3	4	10	10	5	8	31	69	4.30	6.20	5.80	5.10	5.35	14	14	4	4	5.45	
0	0	1	2	5	14	28	53	18	52	4.92	4.92	5.64	5.32	5.20	17	11	3	6	4.90	
5	16	15	36	29	61	13	29	13	43	5.36	5.54	5.89	7.50	6.07	16	12	9	1	1.90	
7	20	10	47	24	79	2	6	26	79	4.57	4.89	5.07	6.35	5.22	15	13	9	0	2.84	
18	79	5	17	17	42	9	17	19	43	2.46	2.85	3.28	4.08	3.17	8	20	8	0	3.40	
10	37	10	36	6	13	2	4	3	10	5.89	6.39	5.85	7.60	6.42	21	7	5	0	2.55	
11	28	9	32	4	10	1	3	10	17	6.50	6.64	5.42	6.89	6.36	20	8	4	0	4.70	
21	77	1	7	19	71	2	5	18	40	4.03	5.39	4.53	6.50	5.11	16	12	7	0	6.89	
12	37	12	45	9	21	10	30	7	14	3.00	4.46	4.14	5.84	4.29	15	13	9	0	2.21	
7	20	7	22	7	21	11	23	17	29	4.36	5.61	5.39	4.86	5.06	15	13	7	0	5.55	
13	40	9	16	13	30	5	13	13	27	5.39	5.03	5.32	6.85	5.65	17	11	8	0	12.83	
10	22	6	12	3	8	23	60	2	4	3.32	3.21	2.92	4.53	3.49	10	18	8	0	5.50	
7	14	21	49	0	0	0	0	1	2	3.70	4.10	5.30	7.10	5.05	14	14	4	0	2.00	
13	39	26	95	13	41	7	30	11	27	6.53	6.46	6.50	6.85	6.59	20	8	5	0	3.30	
13	25	10	13	11	20	3	4	10	21	5.21	5.75	6.21	6.78	6.00	18	10	5	0	2.05	
5	5	36	91	3	3	1	1	8	8	4.25	4.60	5.75	6.00	5.15	17	11	5	0	1.43	
4	8	42	81	5	20	13	33	2	6	1.64	2.78	4.39	4.82	3.41	12	16	6	2	3.25	
4	5	14	24	10	19	15	23	12	19	....	....	....	....	....	15	13	6	1	2.40	
0	0	37	97	2	5	32	127	0	0	2.60	3.57	2.85	4.82	3.46	12	16	5	0	5.30	Therm. protected.
11	35	8	10	0	0	8	19	16	43	2.89	2.71	4.46	4.96	3.76	12	16	2	4	1.23	
10	31	9	27	9	36	12	51	3	17	4.70	4.26	4.10	3.80	4.22	12	16	1	7	1.18	Temp. inaccurate at
25	49	11	20	8	17	11	31	27	92	6.03	6.07	6.28	7.07	6.36	17	11	0	3	0.03	[at 9 a. m.
8	21	23	46	11	24	14	38	7	18	5.60	5.60	6.25	6.42	5.97	19	9	0	2	0.03	
20	49	3	4	11	32	18	71	26	100	4.75	4.67	5.07	6.57	5.26	16	12	0	2	0.01	
10	17	0	0	37	91	11	16	42	69	3.71	4.60	4.75	3.85	4.23	16	12	3	3	1.78	
8	19	10	20	11	34	19	57	8	31	9.07	8.85	9.00	8.00	8.73	25	3	2	2	0.94	
6	18	17	54	4	12	13	27	12	37	5.14	5.28	5.78	5.75	5.49	18	10	1	3	1.33	
1	4	0	0	0	0	40	139	2	3	8.25	9.00	5.57	3.50	6.58	24	4	1	5	0.40	
15	17	33	85	17	27	9	11	6	6	7.85	8.21	8.78	8.85	8.42	24	4	5	0	2.30	
31	111	18	81	19	81	0	0	17	49	1.85	2.85	4.89	6.60	4.05	13	15	3	0	1.10	
1	1	72	150	14	28	0	0	1	1	5.96	7.21	7.10	7.57	6.96	20	8	3	0	0.30	
6	8	0	0	16	25	2	3	12	18	6.07	6.67	6.67	6.14	6.39	19	9	3	0	0.90	
10	27	32	115	23	73	7	23	3	6	5.04	5.57	6.21	7.43	6.06	16	12	4	0	0.77	
5	7	12	13	8	12	21	27	14	30	1.50	3.86	4.57	4.71	3.66	11	17	6	0	1.99	
24	51	8	15	6	8	3	7	8	25	4.35	4.89	5.96	6.71	5.48	15	13	5	0	2.86	
30	61	5	13	21	48	5	8	2	6	4.10	4.57	4.32	5.17	4.54	13	15	4	0	1.50	
17	28	24	44	2	2	4	5	5	10	3.92	4.85	5.64	6.32	5.18	16	12	7	0	1.69	
50	107	5	5	2	4	3	3	20	47	2.85	4.67	6.14	5.57	4.81	15	13	4	0	1.90	
63	137	0	0	0	0	0	0	46	93	3.39	3.96	5.61	6.29	4.81	14	14	4	0	0.69	
6	16	0	0	0	0	3	11	9	15	3.64	4.35	6.00	6.46	5.11	15	13	4	0	2.15	

* Snow estimated at three inches of water.

MONTH OF FEBRUARY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Clarke	44.92	55.75	67.28	52.10	55.01	80	29	25.0	26.0	3	12	13	23	13	16
Fort Fillmore	35.82	53.14	70.96	51.71	50.41	80	20	29.6	30.4	1	4	12	23	6	21
Fort Thorne	19.00	42.06	64.10	37.14	40.57	78	0	37.4	40.6	11	23	4	9	1	1
Fort Conrad	26.57	39.21	58.50	40.03	41.08	67	14	25.9	27.1	29	97	10	22	4	9
Albuquerque	27.92	38.75	57.77	38.35	40.70	67	15	26.3	25.7	50	115	1	2	2	5
Santa Fé	24.92	33.03	46.32	32.00	34.07	55	9	20.9	25.1	9	25	14	31	4	10
Fort Union	22.07	38.35	47.35	36.32	36.02	57	7	21.0	29.0	35	53	6	8	0	0
Fort Defiance	19.67	30.14	43.11	29.67	30.65	54	2	23.3	28.7	16	19	12	17	0	0
Fort Yuma	47.25	59.67	71.03	58.78	59.18	80	32	20.8	27.2	28	88	17	27	0	0
San Diego	42.57	54.82	62.32	50.27	52.50	71	35	18.5	17.5	7	9	10	10	21	25
Fort Jurupa	43.21	55.92	63.82	49.39	53.08	74	31	20.9	22.1	12	32	34	62	10	16
Fort Miller	43.10	49.21	58.39	47.60	49.57	67	32	17.4	17.6	3	5	15	26	31	44
San Francisco	47.50	52.35	57.35	49.67	51.72	66	38	14.3	13.7	10	29	8	24	2	3
Benicia Barracks	44.03	47.53	56.28	47.57	48.85	64	34	15.1	14.9	2	3	10	18	5	8
Fort Reading	41.46	46.14	55.03	46.42	47.26	66	32	18.7	15.3	12	25	1	3	3	5
Fort Humboldt	40.89	44.17	52.85	43.46	45.34	60	29	14.7	16.3	2	6	0	0	14	35
Fort Jones	27.65	31.89	46.82	33.71	35.02	55	17	20.0	18.0	12	21	1	5	1	3
Fort Vancouver	33.82	39.14	43.75	35.50	38.05	54	21	16.0	17.0	1	2	9	21	2	5
Fort Dalles	32.32	37.53	48.21	37.71	38.94	54	22	15.1	16.9	6	9	11	13	0	0
Fort Steilacoom	34.17	39.82	48.17	36.42	39.64	60	22	20.4	17.6	0	0	0	0	4	7

MONTH OF FEBRUARY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S.E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
43	94	2	2	1	3	1	5	20	47	3.46	4.10	5.53	5.57	4.66	13	15	4	0	0.94	
5	19	9	21	13	28	19	68	5	22	9.28	9.50	9.07	9.50	9.34	27	1	0	0	0.00	
0	0	5	7	3	5	44	74	43	70	9.09	9.07	9.03	9.12	9.08	28	0	0	0	0.00	
1	4	18	60	10	38	28	62	7	17	7.46	7.14	6.39	7.35	7.09	23	5	0	0	0.00	
1	3	20	39	2	9	7	21	8	22	7.21	8.17	7.07	8.57	7.76	25	3	1	0	0.00	
5	36	8	20	12	31	12	21	19	45	5.96	6.78	7.50	6.96	6.80	26	4	0	3	0.12	
3	7	5	8	12	29	7	23	34	106	7.07	7.03	7.60	7.21	7.23	25	3	0	2	0.02	
2	2	13	28	12	28	11	17	44	70	7.32	6.75	6.71	8.96	7.44	22	6	0	5	0.15	
10	22	8	13	9	20	16	63	17	57	6.25	6.10	5.50	5.71	5.89	19	9	1	0	0.28	
12	15	11	22	24	43	23	40	4	5	5.28	5.35	6.10	5.71	5.61	17	11	6	0	2.56	
9	16	3	5	29	74	5	12	7	14	5.21	4.75	5.60	6.35	5.48	14	14	8	0	2.34	
1	1	1	1	7	8	26	30	2	6	5.32	5.17	4.96	7.07	5.63	18	10	10	0	2.42	
15	48	4	9	17	58	40	124	14	44	3.03	3.25	3.96	4.07	3.58	12	16	13	0	5.87	
14	21	21	45	18	54	16	40	0	0	3.42	3.67	4.14	4.92	4 04	11	17	10	0	4.80	
2	2	16	34	4	6	2	3	2	2	3.78	4.03	4.53	5.53	4.47	14	14	7	1	2.15	
4	11	0	0	2	8	0	0	2	8	4.32	3.96	7.39	4.50	5.04	15	13	17	0	6.80	
1	4	9	16	7	35	0	0	2	4	2.14	2.07	2.10	4.82	2.78	8	20	4	3	1.00	
40	140	1	3	16	32	1	1	5	10	0.53	1.32	2.57	3.64	2.02	4	24	10	1	2.83	
6	9	4	6	69	117	6	13	2	3	3.35	3.64	5.89	5.28	4.54	12	16	8	2	0.73	
8	13	66	148	18	34	9	13	1	2	0.96	2.17	4.07	4.07	2.82	6	22	12	5	7.57	

MONTH OF MARCH, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Independence	28.54	32.00	38.74	32.41	32.92	64	16	21.1	16.9	15	38	11	17	11	23
Fort Hamilton	33.70	37.25	41.64	38.22	37.70	62	22	24.3	15.7	0	0	29	32	0	0
Fort Columbus	32.29	35.00	41.41	36.00	36.17	66	19	29.8	17.2	4	10	15	27	7	12
West Point	31.16	37.70	40.61	35.93	36.35	63	18	26.7	18.3	29	135	2	6	0	0
Watervliet Arsenal	24.25	32.42	37.45	32.09	31.55	53	10	23.4	21.6	4	13	0	0	2	7
Fort Niagara	29.39	32.55	36.19	31.36	32.37	58	14	25.6	18.4	12	31	5	9	8	8
Alleghany Arsenal	33.51	40.25	47.38	40.32	40.36	66	11	25.6	29.4	14	27	12	13	5	7
Fort Delaware	38.13	43.70	47.70	......	43.18	70	24	26.8	19.2	5	10	3	3	2	10
Fort McHenry	36.67	43.29	53.29	44.35	44.40	73	20	28.6	24.4	15	32	14	21	1	1
Fort Monroe	45.61	51.77	55.26	50.65	50.82	74	28	23.2	22.8	10	26	12	33	19	41
Fort Moultrie	56.77	63.35	68.80	61.97	62.72	85	37	22.3	25.7	7	32	25	80	4	15
Fort Pierce	66.38	74.41	79.96	71.29	73.01	86	55	13.0	18.0	8	33	28	93	6	21
Key West	73.45	76.87	79.68	76.26	76.56	84	68	7.4	8.6	18	52	17	53	30	100
Fort Myers	66.06	74.64	82.35	71.93	73.74	88	58	14.3	15.7	16	40	11	20	3	5
Fort Brooke	62.90	71.29	77.87	68.22	70.07	85	52	14.9	18.1	4	4	35	72	15	25
Fort Meade	62.10	71.00	79.74	69.71	70.64	88	47	17.4	23.6	14	33	11	21	23	56
Fort Barrancas	58.64	66.22	72.80	62.26	64.98	82	42	17.0	23.0	28	49	5	7	5	9
Mount Vernon Arsenal	57.00	65.19	76.51	62.26	65.24	90	40	24.8	25.2	9	18	20	37	1	2
Baton Rouge Barracks	59.45	65.40	74.56	65.54	66.24	83	43	16.8	23.2	5	13	3	9	35	81
Fort Towson	52.22	59.38	68.54	58.06	59.55	89	37	29.4	22.6	12	23	19	36	25	49
Fort Washita	52.45	57.70	74.61	56.90	60.41	88	34	27.6	26.4	5	19	14	64	20	64
Fort Smith	50.19	54.87	65.48	57.51	57.01	84	35	27.0	22.0	14	33	9	21	14	26
Fort Gibson	50.64	56.00	63.67	55.96	56.57	83	38	26.4	18.6	20	68	5	7	12	27
Jefferson Barracks	42.70	48.22	54.70	47.74	48.34	82	22	33.7	26.3	0	0	1	6	14	28
St. Louis Arsenal	40.26	45.74	54.36	44.03	46.10	72	25	25.9	21.1	30	81	4	7	13	22
Newport Barracks	41.83	44.60	52.45	48.09	46.74	74	27	27.3	19.7	33	143	1	4	19	58
Fort Mackinac	21.64	27.54	32.70	23.73	26.40	47	2	20.6	24.4	1	3	1	3	11	20
Fort Brady	18.13	26.77	27.71	19.93	23.14	47	— 5	23.9	28.1	3	13	0	0	10	37
Fort Snelling	24.38	30.51	38.45	29.61	30.74	58	4	27.3	26.7	11	23	9	19	5	7
Fort Ripley	19.93	28.06	35.03	26.03	27.26	51	— 4	23.7	31.3	15	39	14	30	8	13
Fort Ridgely	27.77	37.77	48.54	33.74	36.96	63	13	26.0	24.0	22	120	8	42	11	26
Fort Leavenworth	37.38	43.80	54.74	44.64	45.14	79	20	33.9	25.1	2	2	29	56	0	0
Fort Riley	36.64	46.93	58.62	44.43	46.66	85	—20	38.3	26.7	4	14	5	23	1	5
Fort Kearney	27.77	34.16	48.74	36.35	36.76	72	16	35.2	20.8	18	63	17	42	2	4
Fort Laramie	33.90	39.16	50.16	41.02	41.06	65	21	23.9	20.1	23	31	3	5	14	25
Fort Arbuckle	49.87	58.09	66.32	55.29	57.39	86	27	28.6	30.4	45	89	7	7	12	14
Fort Belknap	54.06	63.41	73.54	61.58	63.15	93	34	29.8	29.2	18	57	12	46	2	4
Phantom Hill	53.51	61.96	71.51	61.45	62.11	93	36	30.9	24.1	15	29	5	9	11	14
Fort Chadbourne	51.93	63.06	78.87	60.45	63.58	94	28	30.4	35.6	9	24	4	7	1	1
Fort McKavett	56.97	60.55	69.77	62.71	62.50	87	37	24.5	25.5	10	39	15	38	12	33
Fort Merrill	63.70	81.54	87.29	77.51	77.50	93	40	15.5	37.5	11	19	10	16	8	8
Fort Ewell	61.19	73.25	82.16	64.77	70.34	94	32	23.7	38.3	12	23	0	0	7	16
Fort Brown	67.64	75.32	78.64	70.90	71.87	86	47	14.1	24.9	11	26	4	10	13	15
Ringgold Barracks	66.64	74.16	83.22	72.38	74.10	98	40	23.9	34.1	20	63	0	0	16	27
Fort McIntosh	64.58	74.19	85.42	72.74	74.23	100	43	25.8	31.2	12	16	13	30	11	22
Fort Duncan	60.68	68.35	80.52	65.13	68.67	93	39	24.3	29.7	0	0	5	10	1	3
Fort Inge	58.96	66.74	79.58	64.87	67.54	90	40	22.5	27.5	12	24	21	31	70	114

MONTH OF MARCH, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	12	2	3	3	7	24	56	42	158	4.03	4.45	4.03	4.54	4.26	19	12	6	4	2.55	
7	7	0	0	29	38	0	0	59	142	4.90	5.41	5.12	5.96	5.35	17	14	7	2	0.65	
10	23	3	4	13	18	10	15	56	177	5.29	4.38	4.12	6.06	4.96	17	14	7	2	0.70	
10	27	38	112	5	12	2	8	30	124	4.90	4.06	4.03	5.41	4.60	16	15	8	2	2.81	
7	15	17	49	5	12	24	145	34	160	5.60	6.52	6.61	5.72	6.11	19	12	6	2	2.73	
7	10	6	7	52	227	16	36	12	53	2.87	2.90	3.46	1.29	2.63	10	21	7	2	1.87	
11	22	8	25	21	74	7	32	20	74	4.45	4.77	4.93	5.00	4.79	15	16	9	3	2.82	
6	10	5	6	6	14	4	8	22	60	6.10	6.13	7.00	....	6.41	19	12	8	1	0.88	No observations at 9
4	11	3	10	8	24	37	74	34	110	5.22	5.22	5.74	5.70	5.47	19	12	8	3	4.70	[p. m.
8	16	23	36	15	39	13	23	17	48	5.77	5.84	6.79	7.45	6.46	22	9	12	0	2.00	
14	51	12	54	41	159	3	12	15	49	4.19	4.64	4.80	5.16	4.70	17	14	3	0	0.25	
23	77	14	42	15	34	15	36	3	8	3.51	4.83	4.48	6.12	4.74	18	13	4	0	1.05	
18	58	20	61	1	3	3	13	4	14	6.42	6.48	6.77	7.09	6.69	25	6	3	0	0.51	
10	30	9	38	17	62	15	35	8	20	7.29	6.35	6.51	6.87	6.76	24	7	2	0	0.20	
25	86	8	13	11	32	17	37	5	7	5.32	6.45	6.32	6.93	6.25	26	5	3	0	2.44	
7	14	15	48	7	16	31	85	5	11	3.03	3.94	4.61	5.61	4.30	15	16	4	0	1.85	
23	61	6	18	20	45	6	14	26	59	3.00	5.68	5.42	7.03	5.28	14	17	8	0	7.21	
25	47	12	32	26	57	3	9	18	35	5.12	5.35	5.83	7.45	5.94	19	12	9	0	6.22	
13	29	19	50	13	34	30	72	2	5	1.48	1.90	2.12	3.09	2.15	10	21	9	0	6.15	Scale of clearness too
19	31	17	39	13	31	7	9	2	2	2.80	3.03	3.45	5.03	3.58	11	20	11	0	5.10	[low.
9	40	39	140	13	44	6	24	6	21	3.77	3.25	4.38	4.51	3.98	14	17	9	0	5.53	
7	13	12	28	27	69	7	20	1	1	3.70	3.93	4.83	4.83	4.32	14	17	11	0	7.05	
11	25	34	113	6	6	5	9	3	8	2.83	2.70	3.29	4.64	3.36	10	21	11	0	7.83	
12	26	41	71	6	15	26	55	7	20	1.80	2.67	3.64	3.87	3.00	11	20	9	1	6.90	
6	6	24	41	8	15	16	23	12	24	....	....	....	....	....	14	17	10	1	7.10	
0	0	45	104	2	8	24	107	0	0	3.70	4.51	4.51	4.83	4.39	14	17	9	0	8.10	
22	71	13	17	8	38	20	47	50	153	4.74	3.00	3.41	4.00	3.79	12	19	3	7	1.56	
11	28	18	40	11	31	41	172	6	20	4.14	3.30	3.25	4.22	3.73	12	19	1	14	1.34	
21	55	13	43	15	43	19	57	29	98	4.77	4.35	4.61	5.03	4.69	15	16	4	5	1.03	
11	22	19	37	10	37	28	89	8	27	5.38	5.51	5.35	5.64	5.47	18	13	3	4	0.79	
13	46	20	79	9	31	19	79	21	114	3.87	4.12	3.38	5.45	4.21	14	17	6	2	1.18	
13	24	0	0	24	70	13	27	33	55	4.58	4.61	4.67	4.48	4.54	16	15	8	2	1.33	
0	0	25	61	20	54	28	58	15	58	7.41	7.67	7.96	7.77	7.70	24	7	4	0	1.86	
4	10	39	98	5	14	6	17	16	56	4.22	5.09	5.00	5.32	4.91	18	13	4	3	1.87	
0	0	0	0	0	0	48	164	2	5	7.06	8.61	8.35	3.06	6.77	23	8	3	7	0.80	
13	13	45	92	11	11	6	6	9	9	7.29	7.45	7.29	8.16	7.55	23	8	9	0	3.33	
46	153	15	44	10	29	5	16	13	34	1.64	2.96	3.64	3.83	3.02	10	21	6	0	1.42	
4	5	76	163	6	13	7	13	0	0	5.83	5.83	5.74	5.93	5.83	20	11	3	0	....	
15	19	4	12	18	39	1	2	3	6	4.80	4.90	5.83	6.32	5.46	19	12	6	0	0.48	
26	88	26	70	22	60	3	8	7	24	3.06	3.55	5.13	5.68	4.36	14	17	8	0	2.10	
42	46	12	15	2	2	10	11	10	20	1.93	4.35	5.96	6.41	4.66	15	16	3	0	0.05	
56	112	4	9	0	0	3	9	9	10	6.09	5.29	5.77	8.25	6.35	19	12	3	0	0.38	
25	61	25	52	36	99	3	10	3	6	4.03	3.96	4.51	6.22	4.68	17	14	4	0	1.15	
42	105	49	75	0	0	3	5	0	0	3.83	4.38	5.25	6.96	5.11	18	13	4	0	0.22	
66	143	12	24	0	0	2	2	5	12	3.03	3.71	5.12	7.00	4.71	16	15	3	0	0.30	
84	173	0	0	0	0	0	0	28	72	1.81	2.32	4.68	5.94	3.69	10	21	6	0	1.50	
17	33	0	0	0	0	0	0	1	4	2.58	2.77	5.38	6.74	4.37	11	20	5	0	3.00	

MONTH OF MARCH, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Clarke	57.93	68.00	76.48	63.09	66.37	87	35	20.6	31.4	6	14	9	11	12	16
Fort Fillmore	45.74	59.38	75.57	58.16	59.71	85	28	25.3	31.7	1	1	3	9	1	1
Fort Thorne	34.51	53.62	68.89	45.89	50.73	83	5	32.3	45.7	12	16	0	0	0	0
Fort Conrad	34.77	48.16	67.03	50.35	50.08	80	17	29.9	33.1	24	57	3	7	3	5
Albuquerque	35.74	50.35	64.96	46.35	49.35	74	23	24.7	26.3	44	99	3	9	0	0
Santa Fé	32.58	42.03	52.90	38.32	41.46	63	19	21.5	22.5	8	14	14	33	6	9
Fort Union	29.48	44.06	52.52	37.58	40.91	62	7	21.1	33.9	38	48	3	7	1	1
Fort Defiance	24.84	37.87	50.25	35.22	37.04	63	8	26.0	29.0	8	13	12	15	0	0
Fort Yuma	49.89	65.77	73.61	68.70	64.50	87	37	22.5	27.5	23	59	15	24	1	3
San Diego	48.67	54.54	63.03	52.25	54.62	69	36	14.4	18.6	2	2	8	9	17	18
Fort Jurupa	42.83	60.25	64.29	50.61	54.49	72	30	17.5	24.5	9	21	28	54	8	13
Fort Miller	45.25	53.61	62.06	51.00	52.98	74	33	21.0	20.0	0	0	8	9	35	41
San Francisco	46.48	53.29	59.29	48.96	52.00	68	39	16.0	13.0	12	29	7	29	1	2
Benicia Barracks	42.41	51.06	59.12	48.51	50.27	72	35	21.7	15.3	0	0	5	10	7	12
Fort Reading	46.67	53.45	61.80	52.54	53.61	76	33	22.4	20.6	14	34	2	2	4	5
Fort Humboldt	42.19	47.71	54.29	45.29	47.37	62	30	14.6	17.4	13	43	0	0	7	14
Fort Jones	30.91	35.37	56.35	42.00	41.16	71	22	29.8	19.2	17	28	3	10	0	0
Fort Vancouver	38.12	45.64	53.77	42.48	45.00	76	34	31.0	11.0	2	2	3	9	6	11
Fort Dalles	36.29	45.41	57.16	45.16	46.00	76	27	30.0	19.0	8	16	3	6	0	0
Fort Steilacoom	35.58	43.58	56.22	40.09	43.87	67	30	23.1	13.9	0	0	0	0	2	7

MONTH OF MARCH, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
70	75	1	1	3	5	0	0	24	28	2.03	2.38	4.61	5.32	3.58	11	20	8	0	1.48	
1	1	5	8	20	64	20	59	14	44	8.58	8.54	8.22	8.51	8.46	28	3	5	0	0.65	
0	0	4	7	20	30	55	85	22	29	8.80	8.60	8.50	8.90	8.70	28	3	2	0	0.14	
4	7	33	121	9	41	41	108	4	12	6.90	6.70	6.00	6.96	6.64	24	7	2	0	0.05	
7	17	62	140	1	4	4	19	3	10	6.67	6.67	6.77	7.00	6.78	23	8	4	0	0.43	
7	22	7	17	15	31	16	34	21	46	5.77	7.22	7.19	7.06	6.81	26	5	6	1	2.01	
3	5	3	6	28	75	11	24	35	93	6.29	6.51	5.87	6.64	6.33	25	6	3	1	0.63	
0	0	12	24	42	94	26	47	20	31	7.32	7.58	6.93	8.32	7.54	28	3	5	3	0.45	
17	33	21	45	14	27	17	67	10	27	5.64	6.12	5.51	6.93	6.05	21	10	2	0	0.80	
17	19	21	23	31	52	21	38	0	0	3.19	4.61	6.58	5.22	4.90	15	16	12	0	2.14	
11	18	5	10	44	97	13	26	5	11	5.09	5.83	5.48	5.38	5.45	20	11	10	0	3.09	
6	6	5	6	6	6	48	62	2	2	5.06	6.03	5.96	6.93	6.00	20	11	7	0	0.85	
11	31	9	23	19	53	45	134	17	55	3.00	3.35	5.19	5.35	4.22	14	17	8	0	3.11	
7	17	0	0	9	21	76	217	0	6	5.12	5.41	4.58	5.77	5.22	18	13	7	0	2.05	
1	2	29	54	5	7	3	5	4	6	4.41	4.61	5.48	6.16	5.16	18	13	5	0	0.80?	
2	6	1	2	1	1	1	2	0	0	6.32	6.13	7.32	5.80	6.39	21	10	10	0	5.14	
0	0	11	20	5	16	3	10	3	10	4.19	4.54	4.19	7.41	5.08	16	15	2	3	0.75	
27	56	2	4	30	63	0	0	15	35	1.12	2.58	3.25	4.25	2.80	9	22	10	1	1.22	
0	0	6	8	78	131	23	76	3	8	5.45	5.51	6.80	5.87	5.91	20	11	4	4	0.36	
7	21	39	106	38	131	17	47	1	3	1.83	2.70	4.54	5.54	3.65	14	17	6	2	2.89	

MONTH OF APRIL, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	37.33	41.96	49.16	41.20	42.41	66	26	23.6	16.4	4	12	40	133	17	31
Fort Hamilton	41.53	45.23	49.90	45.63	45.57	70	28	24.4	17.6	0	0	40	61	0	0
Fort Columbus	40.40	43.90	52.83	43.23	45.09	76	26	30.9	19.1	10	21	28	115	2	4
West Point	39.16	47.93	51.93	44.63	45.91	76	25	30.1	20.9	46	200	4	23	1	2
Watervliet Arsenal	35.60	42.60	47.26	39.63	41.27	66	22	24.7	19.3	19	68	0	0	2	5
Fort Niagara	37.10	42.23	47.53	38.77	41.41	68	27	26.6	14.4	6	6	39	90	5	10
Alleghany Arsenal	41.66	49.56	57.33	48.66	49.30	81	23	31.7	26.3	14	30	22	93	1	4
Fort Delaware	43.92	51.01	58.02	......	50.98	80	29	29.0	22.0	8	11	15	40	1	2
Fort McHenry	43.10	48.23	56.53	48.16	49.00	74	30	25.0	19.0	22	50	23	72	7	13
Fort Monroe	55.00	58.70	58.93	56.00	57.16	80	36	22.8	21.2	4	9	11	28	23	56
Fort Moultrie	56.06	64.96	69.13	60.90	62.76	82	36	19.2	24.8	8	26	12	52	1	3
Fort Pierce, (Capron)	64.70	74.00	76.66	68.93	71.10	89	48	17.9	23.1	11	51	23	83	13	38
Key West	71.36	74.00	76.63	73.56	73.89	83	60	9.1	13.9	42	163	14	54	19	65
Fort Myers	64.30	71.50	79.03	69.46	71.07	88	49	16.9	22.1	26	71	11	25	10	18
Fort Brooke	63.20	71.80	76.43	68.83	70.07	86	45	15.9	25.1	2	5	13	20	31	63
Fort Meade	60.70	68.93	76.07	67.40	68.10	85	44	16.9	24.1	22	52	12	28	23	49
Fort Barrancas	54.40	65.10	71.90	60.33	62.93	83	38	20.1	24.9	18	25	11	15	8	11
Mount Vernon Arsenal	51.73	63.43	75.40	58.63	62.30	87	34	24.7	28.3	12	26	14	23	6	11
Baton Rouge	57.31	64.55	72.55	64.11	64.63	82	43	17.4	21.6	8	21	7	25	27	63
Fort Towson	53.60	60.70	71.53	61.76	61.90	83	30	21.1	31.9	17	37	9	14	16	24
Fort Washita	53.56	60.66	70.26	61.23	61.43	86	32	24.6	29.4	2	2	10	28	18	34
Fort Smith	52.60	58.88	69.36	61.66	60.62	89	33	28.4	27.6	13	41	17	34	10	20
Fort Gibson	53.46	60.33	67.96	60.20	60.49	85	30	24.5	30.5	12	31	2	2	11	17
Jefferson Barracks	49.90	56.20	64.43	56.63	56.79	88	25	31.2	31.8	0	0	0	0	13	37
St. Louis Arsenal	47.60	55.06	67.56	51.43	55.41	87	25	31.6	30.4	20	55	9	31	14	20
Newport Barracks	47.50	52.13	59.66	53.50	53.20	82	29	28.8	24.2	22	92	4	16	29	114
Fort Mackinac	32.23	38.40	43.60	34.00	37.06	63	12	25.9	25.1	5	14	9	25	37	136
Fort Brady	26.37	40.87	43.10	29.24	40.87	63	7	22.1	33.9	5	9	1	4	43	87
Fort Snelling	38.46	48.66	58.83	48.26	48.54	86?	9	37.5	39.5	17	53	17	39	7	18
Fort Ripley	33.93	47.86	58.20	42.33	45.58	80	— 7	34.4	52.6	15	52	24	52	8	17
Fort Ridgely	43.56	55.66	64.33	52.56	54.03	85	13	31.0	41.0	8	40	15	54	13	59
Fort Leavenworth	46.76	56.16	65.76	55.56	56.06	85	15	28.9	41.1	1	1	10	25	0	0
Fort Riley	47.76	56.10	67.51	56.46	56.96	92?	23	35.0	34.0	8	25	2	7	4	7
Fort Kearney	40.83	52.46	62.31	49.30	51.22	88	16	36.8	35.2	20	86	6	16	5	14
Fort Laramie	42.66	49.06	59.04	51.73	50.62	78	24	27.4	26.6	29	33	4	6	16	24
Fort Arbuckle	51.03	61.53	71.76	58.96	60.82	85	25	24.2	35.8	14	23	6	10	11	24
Fort Belknap	53.03	67.00	78.13	64.93	65.77	94	32	28.2	33.8	22	72	1	2	2	4
Fort Chadbourne	51.96	64.33	75.33	61.06	63.17	86	34	22.8	29.2	17	38	1	1	3	3
Fort McKavett	56.77	61.63	72.77	65.00	64.04	86	41	22.0	23.0	14	38	16	50	7	25
Fort Merrill	62.96	78.86	88.13	76.23	76.54	97	44	20.5	32.5	5	8	27	37	9	10
Fort Ewell	60.20	73.53	87.36	68.90	72.50	100	40	27.5	32.5	10	23	4	5	4	8
Fort Brown	66.90	78.43	79.46	70.80	73.90	90	52	16.1	21.9	7	19	5	10	17	33
Ringgold Barracks	65.36	79.53	87.86	73.83	76.39	96	49	19.6	27.4	11	17	0	0	3	10
Fort McIntosh	65.13	76.40	91.13	76.10	77.19	103	48	25.8	29.2	15	34	15	23	5	5
Fort Inge	59.03	68.13	82.66	66.43	64.06	92	44	27.9	20.1	16	27	6	10	79	142
Fort Duncan	60.17	71.70	85.47	71.37	72.18	99	42	26.8	30.2	1	2	7	19	0	0
Fort Clarke	58.16	69.83	80.70	66.20	68.72	90	40	21.3	28.7	2	4	16	49	17	60

MONTH OF APRIL, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy.	Rain.	Snow.		
11	15	4	8	13	30	8	19	23	54	2.53	2.46	3.43	3.66	3.02	11	19	11	2	5.40	
22	26	0	0	25	25	0	0	32	39	3.06	4.16	4.86	4.60	4.17	13	17	12	3	9.58	
10	32	11	19	29	52	8	12	18	44	3.53	3.10	3.96	4.43	3.76	12	18	12	3	8.80	
9	25	34	70	5	17	7	23	10	29	3.40	4.43	4.06	4.86	4.19	15	15	11	5	10.53	
11	30	14	41	8	26	16	56	19	56	6.10	6.56	5.83	4.66	5.79	18	12	9	3	3.98	
10	13	21	43	24	75	7	26	6	18	1.63	2.37	3.12	2.47	2.40	6	24	10	3	2.25	
6	10	7	11	25	58	7	15	18	50	2.50	2.46	3.23	3.66	2.96	10	20	12	4	4.21	
2	2	4	7	2	3	0	0	9	13	....	....	....	....	....	17	13	11	2	6.40	No observations at 9
4	8	3	7	12	35	22	36	19	36	2.73	3.50	5.13	4.26	3.91	15	16	9	3	7.20	[p. m.
3	4	2	4	15	38	18	45	4	11	5.00	5.00	5.00	3.00	4.50	18	12	8	0	1.80?	Inaccurate.
31	78	12	59	32	146	1	3	21	75	4.70	5.23	5.50	6.26	5.42	21	9	8	0	2.20	
24	77	7	13	20	55	6	17	15	40	2.43	3.03	2.50	4.30	3.06	9	21	8	0	7.00	
6	12	11	36	9	23	3	11	12	50	5.12	5.23	5.16	5.76	5.32	19	11	8	0	2.99	
0	0	10	25	13	32	9	24	10	30	4.76	5.16	5.30	5.63	5.21	19	11	5	0	2.75	
15	37	8	10	10	36	30	91	14	38	4.26	5.93	6.26	6.20	5.66	21	9	8	0	8.82	
8	19	9	15	4	12	24	70	8	13	1.90	2.93	3.80	4.80	3.36	13	17	11	0	3.19	
11	17	14	30	12	23	12	23	29	52	4.00	6.03	6.70	7.03	5.94	20	10	1	0	0.50	
35	71	18	28	6	13	4	12	19	59	6.43	7.27	7.03	8.30	7.26	23	7	4	0	1.96	
25	64	9	23	12	32	19	48	7	18	4.33	4.23	3.70	5.13	4.35	14	16	5	0	3.58	
24	46	33	65	8	12	2	4	9	18	3.80	4.10	5.06	5.36	4.58	14	16	9	0	2.22	
14	46	38	144	6	22	6	24	14	38	4.53	4.30	5.00	5.66	4.87	16	14	9	0	4.21	
9	21	18	52	13	36	12	34	3	6	4.26	5.13	5.73	5.66	5.19	17	13	7	0	6.55	
30	100	31	105	2	2	3	9	9	24	4.80	3.86	4.16	5.66	4.62	13	17	9	0	3.16	
10	37	42	81	9	29	20	35	3	21	2.60	4.23	4.56	5.23	4.16	16	14	7	0	3.40	
3	3	20	34	21	36	17	35	2	3	7.17	7.77	7.93	2.83	6.42	15	15	8	0	4.30	Clearness inaccurate.
1	2	21	55	10	38	28	98	3	12	1.66	3.00	3.33	4.66	3.16	11	19	4	2	2.10	
13	26	12	24	4	13	20	61	9	27	4.70	4.83	5.40	5.70	5.16	15	15	6	2	1.04	
6	12	18	37	11	29	11	28	2	9	6.20	6.20	6.10	5.17	5.92	17	13	5	6	2.14	Temp. inaccurate at
19	44	20	50	5	9	9	37	7	20	4.76	4.50	4.13	4.73	4.53	17	13	11	2	2.51	[9 a. m.
3	5	23	65	12	23	8	22	2	4	5.73	5.23	5.26	6.13	6.09	18	12	9	1	0.97	
28	73	20	65	16	36	2	8	6	21	4.13	4.53	3.06	5.26	4.24	13	17	11	2	2.83	
26	61	1	1	41	107	10	17	28	46	5.30	5.70	5.60	4.96	5.39	18	12	10	0	3.35	
14	34	42	91	23	68	11	26	3	14	7.23	8.06	8.86	8.20	8.09	22	8	4	0	4.55	Inaccurate.
17	49	14	40	28	89	4	16	17	52	4.46	5.10	4.60	4.00	4.54	18	12	6	3	2.56	
3	3	0	0	0	0	22	41	9	12	6.30	8.03	8.13	2.66	6.28	23	7	9	3	3.98	
43	92	10	19	19	38	6	7	8	16	8.60	8.56	9.00	7.86	8.50	24	6	6	0	2.98	
54	207	14	62	8	17	1	3	12	44	5.02	6.36	6.04	7.56	6.25	24	6	4	0	1.75	
24	52	17	24	6	10	0	0	3	4	3.83	6.23	6.00	7.03	5.77	21	9	4	0	0.56	
35	120	21	81	13	36	2	6	9	27	4.63	6.03	7.57	8.64	6.72	23	7	3	0	0.28	
34	44	15	44	9	20	2	2	4	6	4.76	6.86	6.10	6.86	6.14	21	9	2	0	1.16	
66	182	7	14	0	0	3	6	11	17	6.06	7.90	7.60	8.66	7.56	27	3	1	0	0.00	
34	70	23	54	26	67	2	5	4	8	5.56	4.80	5.60	6.43	5.60	20	10	1	0	0.05	
39	102	57	161	0	0	0	0	10	14	6.70	7.30	6.73	7.53	7.07	23	7	0	0	0.00	
72	184	6	9	2	2	0	0	5	10	4.40	5.03	6.93	7.76	6.03	19	11	0	0	0.00	
9	20	0	0	0	0	0	0	4	9	4.40	5.06	7.06	8.20	6.18	21	9	2	0	0.75	
83	243	0	0	0	0	0	0	23	63	3.97	4.37	6.27	7.77	5.59	22	8	1	0	0.00	
63	116	2	4	2	4	0	0	19	66	3.50	4.23	6.26	7.36	5.34	16	14	2	0	0.60	

MONTH OF APRIL, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Fillmore	51.73	65.36	81.73	65.56	66.10	90	45	23.9	21.1	0	0	0	0	11	17
Fort Thorne	43.71	66.01	78.71	53.25	60.42	93	35	32.6	25.4	11	20	0	0	0	0
Fort Craig	40.24	59.06	86.03	57.79	60.78	96	33	35.2	27.8	30	78	0	0	2	4
Albuquerque	42.93	59.33	79.33	54.50	59.02	88	34	29.0	25.0	47	111	2	5	6	17
Santa Fé	37.50	50.06	63.26	48.40	49.80	74	29	24.2	20.8	8	22	26	66	5	6
Fort Union	36.16	52.46	60.86	42.56	48.01	72	25	24.0	23.0	45	77	14	30	1	2
Fort Defiance	30.20	50.03	61.77	44.17	46.54	75	14	28.5	32.5	9	13	3	7	2	3
Fort Yuma	58.16	79.00	89.60	72.06	74.71	101	46	26.3	28.7	17	49	18	28	2	3
San Diego	51.20	65.23	75.73	58.23	62.60	93	44	30.4	18.6	4	4	19	20	20	21
Fort Miller	54.43	62.26	70.63	62.83	62.54	83	45	20.5	17.5	0	0	5	6	18	23
San Francisco	50.33	58.06	63.70	52.33	56.11	76	45	19.9	11.1	1	2	4	9	2	5
Benicia Barracks	49.73	55.96	67.80	54.46	57.00	81	41	24.0	16.0	0	0	0	0	0	0
Fort Reading	51.70	61.06	69.56	59.13	60.36	84	40	23.6	20.4	29	46	5	7	5	7
Fort Humboldt	48.03	56.20	60.86	50.16	54.06	74	36	19.9	18.1	18	78	0	0	8	18
Fort Jones	40.00	50.01	66.83	47.26	51.02	92	29	41.0	22.0	16	26	7	13	1	2
Fort Vancouver	46.93	53.16	62.26	47.36	52.43	78	36	25.6	16.4	0	0	3	8	0	0
Fort Dalles	42.83	54.06	65.30	51.86	53.51	82	32	28.5	21.5	3	5	1	3	0	0
Fort Steilacoom	42.03	50.83	62.30	48.16	50.83	78	32	27.2	18.8	3	10	0	0	1	3

MONTH OF APRIL, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
6	9	11	26	13	35	22	74	4	12	9.50	9.33	9.13	9.53	9.37	30	0	1	0	0.10	
3	5	11	22	25	45	44	70	21	38	9.00	9.00	9.00	9.00	9.00	28	2	1	0	0.20	
5	18	35	157	6	27	33	45	3	7	7.72	7.20	6.27	7.41	7.15	25	5	2	1	0.01	
2	6	43	127	4	16	6	22	5	15	7.40	7.50	6.66	7.96	7.40	26	4	2	1	0.39	
10	27	2	4	19	37	6	10	23	51	6.46	6.43	8.06	7.30	7.06	27	3	4	1	1.68	
8	13	3	7	15	45	17	58	13	32	6.90	6.50	6.93	7.43	6.94	25	5	3	3	0.46	
2	3	20	35	20	43	41	58	22	43	8.63	7.76	7.56	8.63	8.14	25	5	2	5	0.93	
13	25	7	18	16	45	24	91	22	56	6.33	6.73	5.76	7.36	6.55	21	9	0	0	0.00	
2	2	4	4	52	92	15	25	3	5	5.43	6.73	7.20	7.43	6.70	21	9	7	0	0.75	
4	4	6	7	12	14	52	67	0	0	6.46	6.56	6.40	8.00	6.86	21	9	8	0	2.08	
3	9	10	30	31	93	52	168	11	47	4.90	4.76	5.66	5.20	5.13	17	13	9	0	2.24	
7	8	0	0	6	14	100	346	0	0	5.93	5.86	5.23	6.40	5.86	20	10	6	0	1.56	
1	1	23	55	2	3	0	0	6	9	4.93	5.23	4.86	5.10	5.03	15	15	12	0	3.07	
6	19	1	1	2	7	0	0	3	6	5.43	6.63	7.40	5.03	6.12	19	11	11	0	5.58	
13	48	8	12	8	18	3	9	10	24	4.00	3.76	3.20	5.90	4.21	11	19	8	0	1.99	
16	37	1	1	15	33	3	6	10	27	0.19	1.96	2.90	4.33	2.35	10	20	11	0	2.78	
0	0	0	0	84	148	19	61	7	15	6.03	5.86	6.56	6.23	6.17	19	11	7	0	1.52	
9	26	28	79	27	82	23	77	7	20	2.90	3.86	4.87	6.36	4.50	14	16	20	0	12.50	

MONTH OF MAY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	51.96	58.12	67.38	57.58	58.76	81	31	22.2	27.8	7	16	15	45	1	2
Fort Hamilton	55.19	58.45	66.67	57.16	59.37	78	35	18.6	24.4	8	9	29	31	1	1
Fort Columbus	54.22	59.51	67.32	58.77	59.96	80	34	20.0	26.0	12	25	17	40	2	2
West Point	54.23	62.74	66.09	59.25	60.57	78	34	17.4	26.6	32	131	4	17	0	0
Watervliet Arsenal	50.86	57.12	59.67	51.90	54.89	74	30	19.1	24.9	13	44	0	0	0	0
Fort Niagara	49.58	56.58	62.30	51.48	54.98	80	32	25.0	23.0	7	7	23	42	4	7
Alleghany Arsenal	50.74	62.38	70.41	61.16	61.17	86	31	24.8	30.2	21	38	16	20	4	8
Fort Delaware	57.20	64.60	74.30	61.80	64.50	88	41	23.5	23.5	5	9	13	23	6	8
Fort McHenry	56.19	64.70	73.09	63.19	64.29	80	40	15.7	24.3	24	63	6	13	5	13
Fort Monroe	61.00	73.35	72.61	68.00	68.74	90	56	21.3	12.7	0	0	6	24	54	114
Fort Moultrie	67.51	77.13	77.77	71.00	73.35	91	45	17.6	28.4	6	15	15	53	14	50
Fort Pierce	72.32	81.80	83.77	75.77	78.41	92	64	13.6	14.4	1	3	45	153	3	10
Key West	77.77	81.12	83.67	80.70	80.84	90	73	9.2	7.8	15	48	8	26	20	42
Fort Myers	71.70	81.16	87.12	76.54	79.13	93	64	13.9	15.1	23	43	16	33	7	14
Fort Brooke	70.77	79.64	85.74	73.64	77.49	90	60	12.5	17.5	1	1	6	14	46	102
Fort Meade	68.58	78.16	83.87	74.61	76.31	90	56	13.7	20.3	22	45	16	30	27	58
Fort Barrancas	68.38	77.51	83.12	72.61	75.40	90	47	14.6	28.4	24	28	3	5	6	10
Mount Vernon Arsenal	65.00	75.83	82.48	75.25	74.64	90	48	15.4	26.6	3	5	12	18	4	6
Baton Rouge	68.27	75.20	82.88	74.06	75.10	91	49	15.9	26.1	3	6	0	0	23	47
Fort Washita	62.06	73.16	75.96	68.00	69.80	88	50	18.2	19.8	7	16	19	57	19	42
Fort Smith	61.35	66.74	74.19	67.74	67.51	84	51	16.5	16.5	8	9	17	34	20	25
Fort Gibson	61.77	68.38	74.22	66.06	67.61	86	51	18.4	16.6	1	1	4	7	15	21
Jefferson Barracks	59.51	68.96	77.51	67.77	68.44	84	46	15.5	22.5	3	7	2	6	3	5
St. Louis Arsenal	57.87	65.58	78.19	63.90	66.36	88	43	21.6	23.4	5	11	2	4	21	31
Newport Barracks	58.00	63.41	70.09	64.51	64.00	83	42	19.0	22.0	1	1	5	5	18	19
Fort Mackinac	42.22	50.12	53.03	45.12	47.62	63	28	15.4	19.6	2	5	6	10	39	138
Fort Brady	37.13	54.64	55.10	38.55	46.36	73	22	26.6	24.4	6	22	6	16	25	62
Fort Snelling	49.80	58.70	65.74	57.03	57.82	84	32	26.2	25.8	11	35	12	60	12	45
Fort Ripley	43.35	54.80	62.00	48.29	52.11	81	31	28.9	21.1	20	61	21	57	9	21
Fort Ridgely	57.35	63.90	69.45	58.58	62.32	90	37	27.7	25.3	18	99	9	29	16	58
Fort Leavenworth	56.58	65.48	74.83	64.90	65.45	88	40	22.5	25.5	4	4	4	7	0	0
Fort Riley	57.96	63.93	72.80	61.29	64.00	86	40	22.0	24.0	0	0	2	3	12	17
Fort Kearney	48.48	61.74	69.70	57.32	59.31	82	30	22.7	29.3	16	41	9	26	6	20
Fort Laramie	49.90	57.52	63.77	56.48	56.92	80	38	23.1	18.9	13	14	4	4	20	30
Fort Arbuckle	61.06	70.62	76.80	66.06	68.64	90	47	21.4	21.6	11	14	11	13	13	22
Fort Belknap	63.70	73.64	80.00	69.29	71.66	88	52	16.3	19.7	9	12	17	42	3	4
Fort Chadbourne	61.90	72.58	77.75	68.09	70.08	94	48	23.9	22.1	11	15	13	15	8	11
Fort McKavett	65.03	68.81	77.39	70.10	70.33	87	56	16.7	14.3	3	7	24	61	8	23
Fort Merrill	71.07	83.30	90.26	78.30	80.73	97	64	16.3	16.7	4	12	1	1	0	0
Corpus Christi	73.07	78.45	78.80	76.11	76.61	86	61	9.4	15.6	0	0	17	48	9	23
Fort Ewell	69.55	77.00	88.48	74.77	77.45	93	58	15.5	19.5	6	11	7	7	8	13
Fort Brown	78.77	82.58	84.77	77.83	81.00	90	67	9.0	14.0	3	6	3	8	13	28
Ringgold Barracks	72.48	82.06	91.42	81.00	81.74	103	63	21.3	18.7	11	33	2	4	31	75
Fort McIntosh	73.48	80.16	91.90	80.09	81.41	104	64	22.6	17.4	6	8	14	25	16	24
Fort Inge	66.12	74.96	88.48	70.00	74.89	95	55	20.1	19.9	12	32	7	8	104	161
Fort Duncan	69.55	77.13	90.35	78.65	78.92	102	60	23.1	18.9	1	2	2	2	0	0
Fort Clarke	66.45	74.74	84.96	73.80	75.00	93	54	18.0	21.0	4	11	10	20	58	162

MONTH OF MAY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
14	33	4	6	52	110	9	20	18	57	3.29	3.35	3.58	3.80	3.51	14	17	10	0	4.28	
20	25	0	0	28	32	0	0	40	53	5.00	5.80	5.25	5.74	5.45	18	13	14	0	6.09	
18	38	21	47	18	30	18	32	12	33	5.22	4.90	4.74	6.16	5.25	18	13	14	0	7.70	
6	21	52	174	11	28	4	12	11	39	4.87	5.35	4.41	6.06	5.17	17	14	12	0	5.08	
14	52	36	93	11	29	16	52	21	88	7.19	7.25	6.61	4.87	6.48	21	10	9	0	1.58	
1	1	29	51	37	116	9	17	9	47	4.96	5.32	4.42	3.64	4.59	15	16	13	0	3.90	
10	22	18	49	20	57	9	23	0	0	4.54	5.74	4.93	5.58	5.20	19	12	11	0	2.24	
31	60	9	10	14	19	5	7	32	46	....	....	....	....	....	22	9	9	0	3.95	
7	13	9	24	18	37	26	57	20	43	5.80	6.09	6.09	4.45	5.61	18	13	9	0	5.20	
0	0	3	5	50	109	5	9	0	0	6.63	7.55	8.10	6.30	7.14	24	7	4	0	0.82	Inaccurate.
15	39	42	147	17	56	6	10	5	13	5.25	4.61	4.51	6.58	5.24	19	12	8	0	3.70	
52	179	0	0	17	31	3	3	1	3	2.96	2.87	3.12	3.58	3.13	15	16	12	0	5.70	
45	134	9	16	13	32	3	7	4	14	6.03	5.80	6.09	7.19	6.28	28	3	7	0	3.14	
8	11	10	28	14	38	2	6	4	9	7.80	5.77	4.77	6.32	6.16	24	7	10	0	5.65	
19	35	20	40	9	23	16	40	0	0	5.09	6.25	5.22	6.16	5.68	25	6	12	0	6.21	
8	15	15	26	4	10	7	11	9	11	1.81	4.39	3.97	4.13	3.57	10	21	16	0	10.57	
22	43	24	39	8	17	18	22	17	18	1.00	4.29	4.19	5.26	3.68	17	14	6	0	3.47	
42	88	19	37	12	21	3	8	25	49	5.25	6.12	5.70	7.22	6.07	20	11	12	0	4.45	
27	60	6	13	25	63	28	60	11	26	2.35	2.48	2.09	3.61	2.63	10	21	9	0	8.05	
11	34	35	105	14	33	5	9	5	10	3.52	4.22	4.65	4.61	4.22	16	15	15	0	11.73	
16	34	19	31	20	56	3	10	0	0	3.37	3.35	4.00	4.41	3.78	12	19	19	0	6.25	
22	38	40	77	4	16	2	3	4	11	2.74	2.80	3.58	5.89	3.73	13	18	19	0	7.67	
30	74	10	21	6	9	26	69	6	25	3.25	4.77	5.25	5.48	4.69	17	14	8	0	6.98	
12	36	23	46	12	17	28	71	5	9	6.90	7.32	7.00	2.42	5.91	18	13	6	0	4.65	
0	0	8	12	16	22	22	27	1	1	5.45	5.22	5.80	6.61	5.77	19	12	12	0	6.47	
22	54	14	22	8	25	29	71	6	19	4.32	4.64	5.77	5.67	5.10	17	14	9	0	2.65	
7	17	35	76	13	41	16	49	4	17	5.52	6.51	6.13	5.13	5.82	18	13	9	0	3.61	
19	73	17	50	13	41	15	63	14	51	4.25	3.74	3.96	4.22	4.04	12	19	10	1	4.30	
8	23	13	31	12	37	14	34	8	16	4.74	4.64	4.19	5.25	4.70	16	15	13	2	4.34	
35	103	10	32	5	19	9	38	24	106	3.61	4.16	3.29	5.09	4.04	13	18	16	0	6.84	
9	23	4	11	62	139	13	35	17	30	3.58	4.22	4.22	3.90	4.98	16	15	9	0	5.55	
19	37	32	51	34	78	3	7	1	4	7.87	8.35	7.90	7.35	7.87	23	8	4	0	4.35	
6	18	17	54	20	61	16	34	30	79	3.80	4.22	3.48	3.61	3.53	16	15	10	0	4.15	
3	4	6	6	2	6	26	31	5	11	7.80	8.64	7.35	1.58	6.34	23	8	10	0	4.46	
19	44	19	36	16	23	7	8	12	15	4.64	5.09	5.74	6.03	5.37	14	17	14	0	6.60	
53	157	14	35	13	36	1	4	6	17	1.77	2.19	2.96	4.80	2.93	9	22	13	0	4.97	
22	30	7	11	10	14	1	1	3	4	5.70	4.54	4.25	5.09	4.90	14	17	10	0	5.76	
37	106	18	50	13	33	5	11	11	31	3.26	4.45	4.94	5.97	4.66	15	16	9	0	3.72	[the 10th to 14th.
34	39	29	29	18	19	6	7	2	2	1.24	4.76	5.57	3.61	3.79	10	16	8	0	7.66	No observations from
59	154	14	33	2	6	0	0	5	8	2.25	2.11	5.66	4.14	3.54	12	15	8	0	8.07	Last 27 days.
67	140	3	4	2	3	4	6	5	8	3.54	4.35	6.32	6.13	5.09	18	13	9	0	6.88	
58	142	25	56	19	52	0	0	0	0	3.06	2.83	3.64	4.77	3.72	13	18	8	0	4.10	
38	84	32	63	0	0	4	6	3	10	3.32	3.58	5.16	5.03	4.27	16	15	8	0	2.83	
73	163	6	10	0	0	2	2	4	8	2.12	3.88	6.61	5.09	4.42	16	15	7	0	5.02	
0	0	0	0	0	0	0	0	1	2	2.96	3.67	5.80	6.58	4.75	15	16	8	0	3.88	
97	265	0	0	0	0	1	2	17	34	2.81	3.06	4.87	5.55	4.07	12	19	8	0	2.53	
28	69	0	0	0	0	1	6	20	50	3.70	4.35	4.80	4.83	4.42	13	18	7	0	2.65	

MONTH OF MAY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Fillmore	54.80	70.48	81.90	67.16	68.59	92	49	23.4	19.6	0	0	1	2	1	2
Fort Thorne	49.35	74.06	87.54	57.27	67.06	102	43	34.9	24.1	9	15	0	0	0	0
Fort Craig	47.77	62.74	82.16	61.56	63.56	93	38	29.4	25.6	3	10	0	0	1	2
Albuquerque	49.35	64.32	78.25	57.96	62.47	91	42	28.5	20.5	34	83	0	0	1	4
Santa Fé	44.06	56.48	65.96	50.22	54.18	79	36	24.8	18.2	6	12	24	53	12	16
Fort Union	39.61	57.35	64.54	48.32	52.46	76	30	23.5	22.5	28	34	11	22	2	6
Fort Massachusetts	34.06	57.94	61.82	43.82	49.41	73	25	23.6	24.4	16	34	8	19	1	2
Fort Defiance	35.83	54.93	64.83	48.64	51.08	77	19	25.9	32.1	9	17	0	0	0	0
Fort Yuma	60.25	76.22	87.25	72.77	74.12	101	46	26.9	28.1	7	9	4	7	2	3
San Diego	53.09	64.06	69.25	56.38	60.69	78	39	17.3	21.7	1	1	7	10	8	10
Fort Miller	58.35	66.32	75.61	66.90	66.80	88	46	21.2	20.8	4	6	9	13	15	25
San Francisco	48.83	54.90	60.93	49.58	53.56	65	43	11.4	10.6	1	2	3	7	0	0
Benicia Barracks	49.48	55.32	67.77	53.00	56.40	78	42	21.6	14.4	1	2	0	0	0	0
Fort Reading	57.32	67.61	77.45	65.32	66.92	91	44	24.1	22.9	37	71	6	7	0	0
Fort Humboldt	47.54	56.22	63.22	48.77	53.94	71	32	17.1	21.9	53	158	0	0	0	0
Fort Jones	42.56	52.32	69.80	49.51	53.55	94?	31	30.4?	22.6	11	17	3	5	0	0
Fort Vancouver	51.77	59.45	67.19	50.32	57.18	88	44	30.8	13.2	0	0	2	4	0	0
Fort Dalles	46.93	61.16	70.03	57.64	58.94	92	39	33.1	25.9	1	1	2	3	1	2
Fort Steilacoom	46.22	55.19	66.90	53.96	55.57	84	40	28.4	15.6	6	24	0	0	5	11

MONTH OF MAY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
1	4	7	15	30	70	21	38	7	22	9.32	9.29	9.03	9.38	9.26	29	2	6	0	0.86	
1	2	15	38	25	52	42	60	22	39	8.09	9.00	8.09	9.00	8.95	29	2	4	0	1.10	
14	43	21	54	13	45	46	84	22	46	7.48	7.49	6.51	8.16	7.41	28	3	5	0	0.62	
2	7	59	167	6	21	8	27	1	2	7.16	7.22	6.29	7.87	7.14	27	4	6	0	1.19	
15	32	4	6	10	20	6	11	23	42	6.93	7.00	5.96	6.96	6.71	26	5	9	0	1.67	
5	11	3	6	23	61	14	37	28	79	6.32	6.16	5.93	5.61	6.00	25	6	6	0	0.50	
8	22	16	40	9	20	6	15	3	5	6.88	6.06	4.06	5.12	5.53	10	7	4	1	3.93	Last 17 days
10	20	31	56	24	63	25	52	6	10	8.41	7.80	6.80	8.16	7.80	25	6	5	0	1.51	
36	78	24	59	13	37	20	71	15	39	7.54	7.83	7.54	8.12	7.76	28	3	0	0	0.00	
4	4	21	35	71	141	10	13	2	2	2.19	2.51	6.48	3.16	3.59	12	19	8	0	0.21	
18	21	10	13	15	36	38	57	5	12	4.48	4.32	5.12	4.51	4.61	15	16	3	0	0.04	
0	0	2	3	23	68	57	123	44	158	4.38	4.54	6.19	5.51	5.16	17	14	3	0	0.06	
0	0	12	34	43	142	64	186	2	5	6.52	5.90	6.52	8.38	6.83	25	6	1	0	0.00	
4	10	27	49	3	6	7	7	6	11	7.22	7.29	6.41	6.03	6.74	25	6	5	0	2.40	
0	0	0	0	0	0	0	0	5	15	7.48	7.80	9.03	6.54	7.71	27	4	1	0	0.12	
6	17	4	5	9	14	3	11	17	40	5.17	5.39	4.21	7.08	5.46	12	11	3	0	0.21	Eight days, 16th to
0	0	2	4	4	7	3	6	24	58	4.67	5.03	5.06	6.41	5.29	18	13	2	0	0.75	[23d, not observed.
2	4	1	2	96	259	16	52	4	11	8.06	8.38	8.35	8.58	8.34	27	4	1	0	0.00	Rain very slight.
3	9	14	50	41	116	16	56	23	66	3.25	4.87	7.35	6.90	5.59	21	10	3	0	0.88	

MONTH OF JUNE, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	60.83	64.74	73.46	64.63	65.91	85	53	19.1	12.9	13	24	13	27	16	44
Fort Hamilton	63.20	68.23	75.66	67.66	68.69	87	54	18.3	14.7	0	0	13	14	0	0
Fort Columbus	62.60	68.23	76.60	66.53	68.49	88	51	19.5	17.5	9	20	13	28	6	12
West Point	62.20	69.23	74.20	66.63	68.06	83	51	15.0	17.0	43	134	0	0	3	10
Watervliet Arsenal	60.66	68.96	74.90	63.90	67.10	83	46	15.9	21.1	16	48	0	0	1	2
Fort Niagara	61.66	67.16	74.13	62.37	67.58	92	52	24.4	15.6	7	7	10	17	15	35
Alleghany Arsenal	61.40	73.73	80.36	69.13	71.15	95	40	23.9	31.1	16	33	14	19	8	10
Fort McHenry	66.23	72.26	78.46	71.00	72.00	95	52	23.0	20.0	12	24	13	37	3	5
Fort Monroe	70.93	76.67	81.43	79.77	77.20	96	57	18.8	20.2	2	2	8	26	41	76
Fort Moultrie	73.76	81.10	82.10	77.23	78.55	93	53	14.4	25.6	5	11	11	51	15	52
Fort Capron	75.73	86.26	87.10	79.26	82.09	94	70	11.9	12.1	1	1	24	56	10	18
Key West	80.46	84.07	85.93	82.90	83.34	90	78	6.7	5.3	8	23	14	20	14	34
Fort Myers	75.93	85.13	88.33	80.00	82.35	94	73	11.7	9.3	11	16	5	11	10	15
Fort Brooke	74.20	81.83	87.66	78.33	80.51	92	68	11.5	12.5	0	0	3	4	22	32
Fort Meade	72.47	80.93	85.13	77.87	79.10	91	67	11.9	12.1	9	11	1	2	32	50
Fort Barrancas	74.26	83.10	87.26	79.33	81.00	104	65	23.0	16.0	16	18	9	9	0	0
Mount Vernon Arsenal	72.26	81.13	87.73	75.56	79.17	97	64	17.8	15.2	2	6	23	52	2	5
Baton Rouge	74.15	81.33	87.40	79.56	80.61	95	66	14.4	14.6	5	10	2	3	30	68
Fort Washita	68.56	75.76	83.56	74.03	75.48	95	56	19.5	19.5	7	16	12	45	8	17
Fort Smith	68.43	73.16	83.30	77.03	75.48	93	57	17.5	18.5	1	2	12	19	28	50
Fort Gibson	68.40	77.36	84.20	73.00	75.74	95	54	19.3	21.7	7	18	13	20	6	9
Jefferson Barracks	68.26	78.33	83.75	68.80	74.78	99	51	24.2	23.8	1	1	2	4	0	0
St. Louis Arsenal	67.13	72.37	87.93	71.57	74.75	103	50	28.3	24.7	10	22	3	3	11	19
Newport Barracks	66.23	71.13	78.60	72.56	72.13	91	52	18.9	20.1	0	0	0	0	16	19
Fort Mackinac	54.50	61.53	67.03	56.80	59.96	82	46	22.0	14.0	6	12	6	20	31	88
Fort Brady	50.00	66.17	72.80	53.18	60.54	89	38	28.5	22.5	9	34	9	28	20	61
Fort Snelling	61.80	73.30	77.33	67.60	70.01	93	41	23.0	29.0	18	20	10	20	1	3
Fort Ripley	52.86	69.10	76.26	57.83	64.01	91	34	27.0	30.0	5	8	22	44	5	10
Fort Ridgely	60.70	74.03	79.47	67.90	70.52	91	42	20.5	28.5	20	50	14	28	3	8
Fort Leavenworth	64.10	73.60	81.56	72.16	72.85	93	46	20.2	26.8	11	18	12	19	0	0
Fort Riley	64.50	71.63	81.60	72.93	72.66	102	47	29.3	25.7	0	0	0	0	6	8
Fort Kearney	59.90	70.53	78.76	66.50	68.92	92	46	23.1	22.9	12	32	6	16	4	6
Fort Laramie	60.23	67.30	75.46	67.93	67.73	93	48	25.3	19.7	0	0	1	1	43	89
Fort Arbuckle	66.00	77.23	84.36	72.26	74.96	98	55	23.0	20.0	12	13	17	19	8	10
Fort Belknap	70.43	79.53	89.26	75.83	78.79	96	59	17.2	19.8	5	8	18	32	0	0
Fort Chadbourne	65.93	72.33	82.06	64.83	74.00	94	59	20.0	15.0	2	3	10	13	4	4
Fort McKavett	71.67	75.37	83.13	77.03	76.80	90	65	13.2	11.8	2	6	30	74	13	35
Fort Merrill	78.76	83.06	93.93	83.53	84.82	100	74	15.2	10.8	0	0	1	3	6	13
Corpus Christi	81.23	84.90	85.13	81.83	83.27	89	78	5.7	5.3	11	27	8	22	11	39
Fort Ewell	74.50	82.66	91.20	78.10	81.61	95	68	13.4	13.6	10	29	7	10	12	20
Fort Brown	78.46	86.10	89.40	80.73	83.67	96	72	12.3	11.7	1	2	1	2	8	16
Ringgold Barracks	76.63	85.06	92.16	83.36	84.30	100	71	15.7	13.3	4	12	4	7	43	72
Fort McIntosh	76.36	83.66	92.96	81.76	83.69	100	70	16.3	13.7	2	5	16	37	7	15
Fort Inge	74.34	83.23	90.46	79.63	81.91	97	67	15.1	14.9	3	6	9	15	91	155
Fort Duncan	74.87	81.30	90.38	80.93	81.87	98	67	16.1	14.9	0	0	9	21	3	6
Fort Clarke	73.53	78.56	87.86	79.30	79.81	93	68	13.2	11.8	5	13	7	11	27	75
Fort Fillmore	67.53	81.00	94.73	79.20	80.61	106	53	25.4	27.6	0	0	4	6	5	9

MONTH OF JUNE, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
27	52	4	10	22	49	10	29	8	17	3.13	3.36	4.00	4.10	3.65	14	16	9	0	2.00	
52	52	0	0	19	26	0	0	35	46	6.00	6.26	5.40	5.23	5.72	19	11	11	0	4.25	
11	24	16	36	27	48	13	28	17	35	4.73	5.10	4.46	5.26	4.89	18	12	7	0	2.20	
11	38	32	99	5	12	6	14	10	32	5.43	5.83	4.46	5.23	5.24	17	13	9	0	1.62	
9	26	48	132	7	22	7	20	18	56	6.00	6.80	6.66	6.09	6.39	18	12	7	0	2.31	
5	8	7	10	48	99	12	19	9	16	2.20	3.17	3.90	1.60	2.72	12	18	8	0	1.71	
10	18	13	29	24	82	6	19	3	7	4.50	5.26	4.86	5.96	5.14	17	13	11	0	2.06	
13	31	6	17	14	29	26	50	21	47	5.60	5.40	5.73	5.47	5.55	18	12	11	0	4.80	
0	0	1	3	56	94	1	3	1	3	6.17	7.87	7.60	5.80	6.86	23	7	5	0	1.30?	
3	10	21	66	29	116	33	78	5	8	4.70	4.83	4.70	5.80	5.01	19	11	8	0	4.20	
31	78	10	14	28	32	2	5	8	9	3.46	3.04	3.06	3.40	3.24	13	17	13	0	6.63	
14	27	15	42	26	66	12	37	2	9	5.02	6.07	5.50	6.17	5.69	21	9	10	0	4.54	
7	9	3	4	19	40	2	3	1	1	7.63	5.86	3.66	6.80	6.00	23	7	12	0	6.75	
14	25	21	32	18	33	32	65	2	3	4.76	5.40	5.76	5.56	5.37	22	8	12	0	9.44	
7	12	12	16	7	13	38	57	3	3	1.93	3.90	3.93	5.20	3.74	13	17	17	0	7.24	
3	3	9	16	24	34	18	22	22	28	3.33	3.93	4.03	6.23	4.38	15	15	10	0	3.39	
33	52	4	5	16	25	5	9	15	32	4.96	4.09	3.71	5.43	4.55	15	15	14	0	6.72	
26	52	16	30	7	14	22	45	9	17	3.03	3.10	2.20	3.30	2.91	9	21	9	0	4.00	
31	68	17	44	19	54	1	1	3	9	5.70	4.03	5.30	5.53	5.14	16	14	11	0	9.17	
12	14	7	19	17	36	3	10	4	12	5.70	4.86	4.70	6.30	5.39	19	11	9	0	2.26	
5	8	44	83	2	4	4	7	8	12	5.86	5.10	5.13	7.83	5.98	20	10	8	0	2.80	
27	54	41	67	9	18	8	22	9	31	4.70	7.63	8.30	6.53	6.79	24	6	3	0	4.19?	
5	6	8	9	17	30	27	50	9	21	6.60	7.00	5.77	1.63	5.25	23	7	5	0	2.20	
0	0	5	6	8	10	35	47	0	0	6.26	7.26	6.70	7.70	6.98	23	7	6	0	2.68	
11	29	2	2	1	5	31	90	25	69	4.66	4.46	4.66	4.60	4.59	16	14	8	0	6.35	
3	6	8	20	16	51	29	81	1	2	6.20	6.10	6.30	5.10	5.92	18	12	8	0	1.23	Inaccurate.
11	31	35	98	14	46	8	20	6	19	5.30	4.07	4.60	5.00	4.74	16	14	10	0	3.31	
32	85	13	36	13	35	8	25	5	13	5.86	5.03	5.63	6.53	5.76	19	11	8	0	3.68	
19	32	15	28	14	42	17	36	8	20	5.76	5.40	5.43	6.23	5.70	17	13	11	0	2.70	
18	24	0	0	56	100	1	2	15	18	6.03	6.30	6.00	5.86	6.05	19	11	5	0	4.50	
6	11	35	63	29	59	19	38	1	4	8.50	9.06	9.00	8.96	8.88	27	3	2	0	1.10	
17	44	21	74	12	49	24	72	21	54	3.40	4.00	4.90	4.73	4.26	16	14	8	0	5.40	
4	11	4	8	0	0	40	53	2	5	7.13	8.10	8.33	2.76	6.58	25	5	11	0	3.67	
10	12	12	20	7	10	5	5	6	6	6.30	6.56	6.46	7.06	6.59	22	8	6	0	4.33	
74	196	8	17	6	3	1	3	0	0	3.02	3.63	4.66	4.93	4.06	15	15	12	0	8.33	
62	88	11	14	1	2	0	0	2	5	4.20	4.46	5.80	5.13	4.90	17	13	6	0	4.67	
49	158	17	52	5	11	1	2	1	3	4.23	3.63	5.27	7.23	5.09	16	14	4	0	0.15	
56	66	19	22	13	19	2	7	2	2	2.20	5.35	5.76	5.83	4.79	18	12	10	0	4.70	
48	139	33	70	1	1	5	5	1	2	5.33	5.40	6.46	6.03	5.81	22	8	6	0	4.71	
37	132	1	1	0	0	1	3	4	6	4.23	4.70	5.73	7.20	5.46	20	10	9	0	6.05	
49	93	37	72	16	28	3	12	3	6	4.16	4.17	4.93	5.83	4.77	18	12	9	0	7.65	
21	36	36	86	0	0	1	4	2	6	3.93	4.40	4.46	5.73	4.63	16	14	11	0	10.98	
83	174	6	11	1	1	1	1	1	2	4.10	4.90	5.93	7.56	5.62	17	13	10	0	4.54	
11	24	0	0	0	0	0	0	0	0	3.96	4.40	5.76	7.06	5.29	17	13	4	0	2.09	
105	221	0	0	0	0	0	0	0	0	2.00	2.90	3.90	5.17	3.49	10	20	10	0	6.83	
53	133	9	22	0	0	0	0	0	0	3.36	3.73	4.66	5.02	4.19	14	16	3	0	0.11	
10	19	13	33	20	41	14	30	5	13	9.43	9.36	9.16	9.20	9.29	30	0	1	0	0.05	

MONTH OF JUNE, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A.M.	3 P.M.	9 P.M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Thorne	49.53	83.63	98.71	57.59	72.37	113	39	40.6	33.4	3	4	3	5	5	7
Fort Craig	60.60	77.50	94.30	69.66	75.51	102	45	26.5	30.5	17	24	2	2	13	13
Albuquerque	59.03	74.80	91.03	70.46	73.83	102	51	28.2	22.8	28	79	0	0	0	0
Santa Fé	56.60	68.13	79.13	68.86	68.18	92	45	23.8	23.2	5	8	5	7	7	12
Fort Union	46.77	63.70	71.93	57.40	59.95	86	39	26.1	20.9	22	34	16	29	9	12
Fort Massachusetts	41.53	64.00	71.24	53.23	57.50	89	31	31.5	26.5	24	31	4	6	0	0
Fort Defiance	45.46	68.33	77.23	58.60	62.40	92	30	29.6	32.4	10	18	1	1	1	2
Fort Yuma	73.33	84.77	98.50	85.00	85.40	113	59	28.6	26.4	5	6	4	5	5	7
San Diego	57.13	69.33	73.48	60.20	65.04	93	48	28.0	17.0	6	8	12	14	8	9
Fort Miller	62.03	76.70	89.46	76.50	76.17	102	53	25.8	23.2	0	0	2	4	6	7
San Francisco	50.93	56.56	62.30	51.43	55.30	66	49	10.7	6.3	1	2	0	0	0	0
Benicia Barracks	54.26	61.03	73.70	60.80	62.45	95	49	32.6	13.4	0	0	0	0	0	0
Fort Reading	60.80	73.16	83.80	72.13	72.47	96	54	23.5	18.5	31	58	2	2	2	2
Fort Humboldt	51.50	60.56	67.40	52.70	58.04	78	40	20.0	18.0	14	42	0	0	0	0
Fort Jones	49.18	59.10	68.83	57.93	58.76	80	42	21.2	16.8	36	65	26	39	9	11
Fort Vancouver	54.60	57.30	65.60	49.90	56.85	86	46	29.1	10.9	1	1	0	0	0	0
Fort Dalles	53.63	66.26	72.90	61.26	63.51	88	41	24.5	22.5	0	0	3	6	5	11
Fort Steilacoom	51.50	59.00	71.30	54.03	58.96	86	44	27.0	15.0	2	5	1	1	8	15

At *Fort Chadbourne* the mean is computed from the observations at sunrise and 3 p. m.; those at 9 p. m. being apparently in error.

At *Fort Thorne* the great daily range is mainly due to the local influences prevailing at elevated positions in the mountain regions of New Mexico, but the exposure of the thermometer appears defective also, and some of the readings in error.

MONTH OF JUNE, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	4	34	57	26	84	24	50	11	14	9.04	9.02	9.00	9.00	9.01	29	1	1	0	0.08	
17	19	18	26	7	17	20	49	17	33	8.40	8.44	7.56	8.46	8.22	27	3	4	0	0.01	
9	26	46	146	8	24	7	21	4	10	8.50	8.01	6.90	7.60	7.75	25	5	3	0	0.28	Therm. protected.
24	45	4	13	30	67	7	8	11	14	7.86	8.53	6.66	6.73	7.44	28	2	4	0	0.32	
7	18	21	53	22	68	9	23	11	29	5.30	6.17	5.60	5.80	5.72	22	8	6	0	0.69	
8	11	26	52	14	26	16	21	9	17	7.43	7.30	4.63	6.93	5.32	24	6	4	0	0.24	
2	5	31	57	16	37	41	78	3	4	8.55	4.03	9.76	7.73	7.52	25	5	6	0	1.24	
26	67	25	66	18	43	22	63	13	24	7.43	7.86	7.30	8.10	7.67	25	5	0	0	0.00	
3	3	19	30	50	102	13	16	2	2	2.76	6.00	8.53	6.30	5.90	20	10	2	0	0.02	
14	23	31	43	33	47	15	22	8	15	8.46	7.63	6.70	8.26	7.76	26	4	1	0	0.01	
0	0	0	0	48	148	46	182	23	90	4.36	5.33	8.00	6.16	5.96	20	10	1	0	0.05	
0	0	4	14	8	26	106	365	0	0	7.73	6.83	6.63	8.93	7.53	26	4	1	0	0.01	
5	5	21	37	5	7	9	15	6	7	6.56	6.43	6.63	6.80	6.60	23	7	1	0	0.00	
0	0	1	1	5	17	0	0	14	44	6.26	5.40	8.80	6.33	6.70	24	6	4	0	0.69	
10	18	7	15	6	8	5	8	3	4	7.00	6.56	5.86	7.26	6.67	23	7	8	0	0.63	
20	30	1	2	19	30	6	7	8	12	3.16	3.33	3.56	3.93	3.49	12	18	7	0	2.41	
9	15	1	2	94	227	8	29	0	0	5.23	6.20	5.63	6.06	5.78	20	10	6	0	0.15	
5	12	21	79	26	74	26	88	9	26	2.50	3.40	4.13	4.60	3.66	13	17	14	0	5.68	

MONTH OF JULY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Independence	69.05	73.09	81.45	72.70	74.07	99	59	24.9	15.1	19	33	5	8	11	17
Fort Hamilton	71.67	77.64	84.00	75.38	77.17	95	64	17.8	13.2	0	0	34	46	0	0
Fort Columbus	70.64	76.32	82.58	74.00	75.89	93	62	17.1	13.9	4	7	31	59	4	5
West Point	69.45	76.45	81.96	76.51	75.59	97	62	21.4	13.6	28	97	0	0	1	2
Watervliet Arsenal	70.48	78.22	84.22	75.77	77.17	96	58	18.8	19.2	9	30	0	0	4	12
Fort Niagara	64.53	74.20	81.93	70.70	72.84	95	60	22.2	12.8	25	31	8	13	14	31
Alleghany Arsenal	67.09	80.41	89.25	75.96	78.18	100	55	21.8	23.2	24	50	18	26	4	6
Fort McHenry	73.09	78.12	84.61	77.45	78.32	98	64	19.7	14.3	17	31	19	42	5	11
Fort Monroe	76.03	81.19	86.13	77.48	80.21	96	70	15.8	10.2	0	0	25	58	27	41
Fort Moultrie	77.48	82.74	86.16	81.87	82.06	98	72	15.9	10.1	8	19	7	19	11	29
Fort Pierce	78.00	88.48	90.00	80.16	84.16	97	74	12.8	10.2	0	0	8	14	17	48
Key West	80.48	84.41	85.80	82.51	83.30	89	78	5.7	5.3	1	1	12	31	19	49
Fort Myers	76.03	85.48	86.80	79.25	81.91	95	74	13.1	7.9	6	10	10	15	24	41
Fort Brooke	75.92	82.74	86.51	79.16	81.08	93	73	11.9	8.1	0	0	4	8	40	68
Fort Meade	73.45	82.81	85.87	78.55	80.17	93	70	12.8	10.2	18	20	2	6	62	100
Fort Barrancas	76.71	89.74	92.09	79.64	84.55	98	74	13.4	10.6	12	14	6	11	4	8
Mount Vernon Arsenal	74.74	79.67	84.83	76.35	78.90	95	72	16.1	6.9	3	7	20	41	15	22
Baton Rouge	75.06	81.66	84.98	78.67	80.09	92	72	11.9	8.1	3	6	14	30	42	88
Fort Washita	73.61	84.38	92.16	82.38	83.13	99	61	15.9	22.1	6	13	9	26	8	17
Fort Smith	73.83	80.45	94.45	83.87	83.15	99	64	15.9	19.1	3	6	1	3	11	32
Fort Gibson	74.32	86.83	95.35	82.00	84.62	104	64	19.4	20.6	10	17	2	3	3	4
Jefferson Barracks	76.05	88.51	94.93	83.70	85.80	101	60	15.2	25.8	8	28	3	3	2	9
St. Louis Arsenal	73.84	81.00	95.03	79.13	82.25	107	59	24.8	23.2	16	41	4	5	12	25
Newport Barracks	72.61	78.64	87.38	79.51	79.54	95	64	15.5	15.5	2	5	4	6	12	16
Fort Mackinac	62.29	70.58	71.93	63.70	67.12	86	44	18.9	23.1	10	18	4	10	15	42
Fort Brady	54.55	70.33	76.45	59.48	65.20	94	40	28.8	25.2	10	28	0	0	11	21
Fort Snelling	65.67	78.70	83.06	72.74	75.04	93	55	18.0	20.0	9	16	4	14	4	5
Fort Ripley	59.77	72.06	79.19	64.70	68.93	90	45	21.1	23.9	11	29	16	41	6	12
Fort Ridgely	68.16	83.48	85.48	73.29	77.60	98	50	20.4	27.6	10	21	10	28	7	13
Fort Leavenworth	70.52	83.77	89.94	80.52	81.19	102	59	20.8	22.2	1	4	3	6	18	38
Fort Riley	73.96	82.19	93.79	84.83	83.69	104	64	20.3	19.7	3	5	1	1	13	25
Fort Kearney	64.51	77.20	86.64	72.30	75.16	99	46	23.8	29.2	6	15	8	15	12	20
Fort Laramie	67.12	73.96	83.70	76.16	75.24	92	54	16.8	21.2	2	2	0	0	58	72
Fort Arbuckle	72.22	85.70	94.45	80.77	83.29	102	54	18.7	29.3	14	16	5	6	1	2
Fort Belknap	74.16	87.03	91.61	82.74	83.86	99	67	15.2	16.8	4	13	13	44	3	8
Fort Chadbourne	72.16	79.06	90.16	72.77	78.54	94	64	15.5	14.5	1	2	4	4	14	25
Fort McKavett	71.55	77.52	86.71	79.19	78.74	91	64	12.3	14.7	1	1	24	51	12	31
Fort Merrill	74.74	90.48	96.74	81.67	85.91	100	69	14.1	16.9	0	0	2	6	1	1
Corpus Christi	81.03	85.16	85.38	82.03	83.40	89	69	5.6	14.4	7	12	19	53	21	53
Fort Ewell	71.55	85.93	94.22	77.19	82.22	99	65	16.8	17.2	17	38	4	12	1	3
Fort Brown	77.12	87.93	90.25	80.96	84.06	98	74	13.9	10.1	0	0	6	12	12	26
Ringgold Barracks	74.48	85.83	89.16	81.12	82.65	97	70	14.4	12.6	1	5	13	57	7	14
Fort McIntosh	73.20	87.03	94.00	82.00	84.06	102	68	17.9	16.1	6	9	7	17	12	16
Fort Inge	73.96	84.93	92.22	81.00	83.03	97	65	14.0	18.0	1	4	10	15	92	152
Fort Duncan	73.42	83.87	94.42	82.39	83.52	101	63	17.5	20.5	0	0	6	17	2	10
Fort Clarke	73.77	82.51	91.45	80.16	81.97	96	69	14.0	13.0	8	30	14	31	47	92
Fort Bliss	74.84	86.16	96.06	85.93	85.75	107	68	21.3	17.7	0	0	0	0	0	0

MONTH OF JULY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
16	26	12	20	28	72	12	19	16	38	3.32	3.38	4.32	4.12	3.79	12	19	5	0	4.44	
19	26	0	0	26	39	0	0	44	49	5.51	6.45	5.96	4.80	5.68	20	11	7	0	2.23	
8	15	11	25	35	60	16	28	12	22	4.17	4.80	4.87	6.97	5.20	16	15	7	0	1.90	
11	31	52	160	5	10	6	11	16	42	4.09	5.32	5.54	6.80	5.44	17	13	8	0	3.73	
4	10	28	97	14	39	9	28	8	16	7.13	7.16	8.00	7.80	7.52	25	6	4	0	1.54	
3	4	6	9	30	102	11	33	14	46	5.36	7.26	6.46	4.16	5.81	20	11	7	0	4.03	
6	10	8	26	15	40	10	22	9	26	4.64	6.16	5.80	6.06	5.66	20	11	7	0	1.45	
8	14	10	27	20	51	18	36	18	27	5.80	5.87	6.06	6.29	6.00	19	12	6	0	2.60	
0	0	1	3	60	92	1	1	0	0	7.61	7.22	7.64	6.00	7.12	22	9	10	0	1.60	Inaccurate ; amount
3	9	28	98	34	86	30	76	12	27	4.67	5.06	5.09	6.96	5.45	20	11	12	0	5.69	[of rain incom-
66	181	5	5	19	28	1	1	0	0	3.87	3.16	3.03	5.90	3.99	10	21	10	0	4.97	[plete.
41	112	33	80	14	32	0	0	0	0	4.19	4.35	4.22	4.16	4.23	14	17	12	0	3.45	
11	18	3	5	9	18	2	6	1	1	8.64	5.77	3.77	6.58	6.19	22	9	15	0	9.70	
16	39	7	11	12	29	23	37	1	1	6.25	6.45	4.77	5.58	5.76	22	9	17	0	15.53	
6	12	15	36	0	0	11	13	2	2	2.13	4.00	3.19	4.55	2.47	12	19	22	0	8.55	
8	17	7	8	20	27	27	31	24	27	2.03	3.32	3.13	5.16	3.41	12	19	13	0	5.43	Clearness inaccurate.
29	47	3	7	11	16	3	4	32	56	5.25	4.77	3.38	5.32	4.68	16	15	13	0	6.13	
15	36	17	35	6	14	16	34	1	3	2.80	2.93	1.45	2.77	2.49	8	23?	13	0	6.55	
17	42	51	115	13	28	6	10	0	0	6.41	7.48	6.22	8.54	7.16	24	7	3	0	0.59	
13	24	52	95	7	12	3	5	2	7	7.80	7.22	4.93	7.80	6.94	25	6	5	0	1.02	
11	19	68	114	6	12	0	0	3	6	7.71	7.19	5.54	8.77	7.30	26	5	3	0	0.21	
15	25	32	66	14	33	19	37	1	2	6.19	7.67	7.06	7.06	6.99	27	4	2	0	0.96	
2	3	26	41	21	30	15	35	2	5	7.42	7.84	6.68	2.61	6.14	28	3	2	0	1.70	
0	0	2	4	10	10	26	28	0	0	9.25	8.74	7.45	9.67	8.78	30	1	3	0	2.05	
13	27	19	50	6	19	35	86	15	50	4.48	4.87	6.19	5.87	5.35	21	10	11	0	5.67	
2	3	38	100	15	44	20	71	1	3	5.35	5.93	6.45	6.46	6.05	23	8	9	0	3.21	
13	29	45	28	14	39	9	20	12	33	6.70	5.06	4.45	4.58	5.20	18	13	10	0	3.92	
34	86	8	25	18	53	12	32	17	40	3.93	4.67	4.64	6.03	4.82	16	15	9	0	0.62	
7	8	31	62	22	51	17	27	9	30	4.35	4.74	4.70	5.22	4.75	17	14	8	0	2.49	
19	38	38	92	31	76	1	3	5	17	7.42	7.80	7.29	7.48	7.50	28	3	2	0	0.18	
7	11	52	88	12	16	10	12	1	2	9.03	9.09	9.25	9.51	9.22	31	0	0	0	0.00	
9	19	18	51	25	66	34	106	7	10	3.68	6.03	6.48	7.29	5.87	25	6	9	0	3.51	
1	2	6	8	0	0	22	28	2	2	7.87	9.12	8.45	2.80	7.06	30	1	12	0	3.26	
13	27	25	41	8	14	9	9	5	5	9.51	9.61	8.77	9.80	9.42	31	0	0	0	0.00	
77	221	25	92	5	22	0	0	0	0	5.06	5.90	5.29	8.58	6.21	25	6	1	0	0.00	
10	15	3	3	2	2	2	2	1	1	7.54	7.38	7.38	8.35	7.64	27	4	4	0	1.31	
62	177	14	39	3	6	0	0	4	10	7.10	6.71	5.52	7.90	6.81	26	5	4	0	2.91	
52	56	14	14	9	9	0	0	0	0	3.64	6.45	6.32	7.19	5.90	25	6	9	0	5.46	
42	117	6	12	3	4	23	25	0	0	5.90	5.74	6.30	7.35	6.32	23	8	6	0	7.69	
59	145	11	30	0	0	0	0	0	0	7.58	5.87	6.06	8.55	7.02	26	5	5	0	3.58	
27	53	31	52	32	64	12	19	3	6	5.00	4.77	4.37	6.64	5.32	22	9	9	0	4.25	
26	68	46	124	18	50	2	2	3	3	6.87	5.41	5.61	7.61	6.37	25	6	7	0	4.06	
83	190	3	4	0	0	0	0	2	3	7.80	6.93	6.13	7.56	7.10	26	5	7	0	3.95	
24	49	0	0	0	0	0	0	0	0	5.74	5.51	6.03	8.51	6.45	26	5	5	0	0.97	
101	235	0	0	0	0	0	0	9	14	4.55	4.55	4.52	7.16	5.28	19	12	8	0	0.83	
33	77	14	38	1	1	2	2	0	0	4.41	5.77	3.12	7.25	5.14	24	7	2	0	0.08	
47	54	24	31	31	58	9	19	6	8	9.33	9.34	9.33	9.00	9.25	31	0	1	0	0.10	

MONTH OF JULY, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Fillmore..........	75.29	84.58	97.25	83.35	85.12	102	69	16.9	16.1	5	8	5	12	5	12
Fort Thorne	59.28	85.45	99.67	68.67	78.27	110	51	31.7	27.3	1	1	29	53	37	54
Fort Craig............	68.29	88.19	94.45	77.61	82.14	107	65	24.8	17.2	13	13	14	16	21	31
Albuquerque	66.77	77.19	97.11	74.41	78.87	102	61	23.1	19.9	0	0	0	0	4	13
Santa Fé	61.29	72.58	83.77	69.58	71.80	91	55	19.2	16.8	2	5	19	51	4	7
Fort Union............	54.03	70.13	77.23	64.45	66.46	85	48	18.5	18.5	15	19	2	2	11	11
Fort Massachusetts.....	48.48	72.48	78.77	56.55	64.07	88	42	23.9	22.1	49	98	0	0	2	5
Fort Defiance..........	59.38	72.48	85.74	66.19	70.95	95	51	24.0	20.0	4	5	1	1	1	1
Fort Yuma............	84.83	92.16	104.29	95.00	94.05	113	77	19.0	17.0	7	20	6	12	3	5
San Diego.............	66.19	77.58	82.93	65.87	73.14	99	56	25.9	17.1	8	13	19	34	7	14
Fort Miller............	78.54	91.48	105.35	88.32	90.92	115	63	24.1	27.9	0	0	0	0	0	0
San Francisco	52.74	58.16	64.90	53.19	57.25	78	50	20.8	7.2	0	0	0	0	0	0
Benicia Barracks	56.61	68.19	83.61	65.06	68.37	102	49	33.6	19.4	0	0	0	0	0	0
Fort Reading	69.28	83.27	99.21	83.23	83.75	110	61	26.3	22.7	39	100	4	6	0	0
Fort Humboldt........	49.67	60.16	66.00	51.03	56.71	73	39	16.3	17.7	6	11	0	0	1	2
Fort Jones............	56.03	67.66	85.64	74.93	71.07	94	47	22.9	24.1	27	44	8	14	6	9
Fort Orford	50.23	61.06	67.06	54.23	58.14	80	45	21.9	13.1	3	11	0	0	0	0
Fort Vancouver	63.38	64.99	86.64	56.61	67.90	96	50	28.1	17.9	0	0	0	0	0	0
Fort Dalles	55.35	71.12	85.87	73.70	71.51	101	42	29.5	29.5	2	3	3	3	1	2
Fort Steilacoom........	51.06	63.48	79.83	60.48	63.71	93	45	28.3	18.7	6	20	1	2	1	2

MONTH OF JULY, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	12	27	45	37	88	2	3	3	6	8.87	8.96	7.96	8.06	8.46	31	0	5	0	0.87	
22	36	26	36	5	8	0	0	1	5	9.64	9.35	9.22	8.74	9.24	31	0	9	0	2.23	
29	31	36	46	1	1	1	1	1	1	8.12	8.48	7.19	7.83	7.90	31	0	11	0	0.41	
15	38	47	101	12	30	12	26	9	19	7.41	7.45	6.16	6.16	6.79	28	3	8	0	2.59	
32	49	5	6	26	42	3	4	11	20	7.54	7.67	5.19	5.03	6.36	25	6	10	0	4.11	
20	30	33	57	3	5	14	15	9	12	4.58	5.32	4.16	3.58	4.41	21	10	9	0	3.98	
1	3	22	35	13	27	13	34	3	8	6.27	6.51	5.00	6.17	6.14	25	6	7	0	2.14	
4	7	58	92	12	18	5	7	7	9	7.80	4.38	6.45	5.93	6.14	26	5	10	0	3.94	
30	84	36	79	12	22	22	38	6	9	5.76	7.03	6.93	7.80	6.88	24	7	3	0	0.01	
6	12	9	13	37	76	21	50	8	18	2.09	6.19	7.81	7.22	5.83	21	10	1	0	0.07	
0	0	95	103	28	52	0	0	0	0	8.29	6.96	6.90	7.67	7.46	25	6	3	0	....	
0	0	0	0	51	164	72	246	4	11	3.38	4.06	5.67	3.29	4.10	10	21	3	0	0.01	
1	1	1	1	0	0	120	399	0	0	6.80	6.64	3.38	8.87	6.42	27	4	0	0	0.00	
5	6	14	26	10	13	1	1	6	12	9.50	9.12	9.00	8.20	8.96	31	0	2	0	0.01	
1	1	4	6	7	11	1	1	38	106	3.87	4.93	8.58	5.87	5.81	21	10	0	0	0.00	
6	10	25	33	22	28	5	7	14	27	7.58	7.70	7.29	8.38	7.74	29	2	1	0	0.20	
14	24	6	11	0	0	5	14	93	293	7.25	8.25	9.61	8.12	8.31	28	3	0	0	0.00	
0	0	28	50	26	38	36	59	8	8	8.92	8.97	9.16	9.35	9.10	27	4	0	0	0.00	
5	6	0	0	94	285	16	57	0	0	9.29	9.32	9.35	9.03	9.25	31	0	0	0	0.00	
2	6	6	19	7	25	51	179	10	34	5.90	6.77	8.96	7.03	7.16	23	8	0	0	0.00	

MONTH OF AUGUST, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	64.67	69.38	77.35	68.41	69.70	86	56	16.3	13.7	9	22	22	48	3	8
Fort Hamilton	69.16	74.03	81.90	73.58	74.67	91	62	16.3	12.7	0	0	9	10	0	0
Fort Columbus	67.32	72.61	79.80	71.77	72.88	90	58	17.1	14.9	1	1	26	43	2	6
West Point	65.64	74.32	79.87	71.16	72.75	94	55	21.3	17.7	29	84	6	14	1	3
Watervliet Arsenal	59.48	71.58	79.16	68.84	69.77	86	54	16.2	15.8	5	10	0	0	7	13
Fort Niagara	63.19	70.42	76.78	68.10	69.62	93	55	23.4	14.6	11	12	4	4	6	16
Alleghany Arsenal	66.22	77.16	88.41	74.74	76.38	96	53	19.6	23.4	21	32	11	17	12	16
Carlisle Barracks	63.70	74.19	84.03	72.51	73.61	96	47	22.4	26.6	3	3	2	5	21	43
Fort McHenry	70.51	74.80	81.67	74.83	75.45	92	61	16.5	14.5	13	30	27	69	10	17
Fort Monroe	76.51	80.00	84.20	77.48	79.55	96	71	16.4	8.6	0	0	30	99	27	39
Fort Moultrie	77.75	83.09	86.80	81.74	82.37	93	70	10.6	12.4	10	28	12	43	9	30
Fort Capron	75.77	87.70	89.22	80.77	83.37	95	71	11.6	12.4	1	2	3	7	22	67
Key West	81.06	84.19	83.06	82.07	82.59	89	78	6.4	4.6	0	0	21	64	35	118
Fort Myers	76.51	84.93	86.48	79.48	81.85	93	73	11.2	8.8	15	21	21	33	12	19
Fort Brooke	75.19	80.80	84.25	78.12	79.59	90	72	10.4	8.6	1	1	6	9	43	71
Fort Meade	74.30	82.71	84.84	78.10	79.99	92	70	12.0	10.0	24	32	2	7	41	87
Fort Barrancas	77.58	87.48	89.93	81.42	84.10	102	74	17.9	10.1	20	34	15	26	4	8
Mount Vernon Arsenal	75.51	79.74	89.48	79.96	81.17	97	72	15.8	9.2	1	2	21	35	7	10
Baton Rouge	76.00	83.06	87.30	79.74	81.52	92	73	10.5	8.5	19	24	6	11	65	138
Fort Washita	74.03	83.96	93.90	81.70	83.40	102	69	18.6	14.4	9	19	3	6	7	12
Fort Smith	73.93	80.54	93.22	83.12	82.70	102	68	17.3	14.7	4	10	3	5	45	79
Fort Gibson	74.14	87.38	96.77	82.48	85.20	105	65	19.8	20.2	8	14	0	0	7	8
Jefferson Barracks	72.35	82.90	92.00	81.25	82.12	102	58	19.9	24.1	2	2	1	2	7	9
St. Louis Arsenal	71.23	79.51	96.45	78.03	81.30	106	59	24.7	22.3	6	9	9	17	20	39
Newport Barracks	71.22	76.70	86.45	78.16	78.13	96	58	17.9	20.1	1	3	9	14	15	23
Fort Mackinac	59.64	67.77	70.64	60.83	62.47	81	48	18.5	14.5	15	14	8	25	23	61
Fort Brady	53.06	65.38	70.64	56.00	61.27	92	44	30.7	17.3	4	9	2	3	22	50
Fort Snelling	60.32	72.87	80.80	70.51	71.12	95	50	23.9	21.1	15	25	2	3	5	9
Fort Ripley	57.12	70.09	78.87	64.93	67.78	97	34	29.2	33.8	3	10	20	41	1	3
Fort Ridgely	66.67	77.32	83.45	71.74	74.80	96	43	21.2	31.8	19	32	7	17	6	12
Fort Leavenworth	68.19	82.90	91.19	74.22	79.10	103	56	23.9	23.1	4	6	3	6	27	43
Fort Riley	75.86	84.09	93.19	85.87	84.78	105	60	20.2	24.8	0	0	2	6	5	7
Fort Kearney	65.06	78.19	88.77	72.40	76.10	99	49	22.9	27.1	3	3	6	6	15	24
Fort Laramie	68.35	75.12	85.16	77.22	76.46	94	58	17.5	18.5	4	5	0	0	71	82
Fort Arbuckle	75.61	81.35	95.54	83.29	83.95	105	68	21.1	15.9	24	28	6	12	8	12
Fort Belknap	77.61	89.16	96.41	83.83	80.75	101	72	20.3	8.7	1	3	7	26	3	7
Fort Chadbourne	70.00	84.19	96.06	81.51	82.94	102	66	19.1	16.9	7	8	8	8	19	23
Fort McKavett	72.74	78.45	88.26	80.97	80.10	93	68	12.9	12.1	0	0	9	18	20	49
Fort Merrill	74.35	88.22	94.99	80.00	84.39	99	68	14.6	16.4	0	0	0	0	1	1
Corpus Christi	80.96	83.61	88.22	83.67	84.61	90	75	5.4	9.6	2	3	4	9	14	32
Fort Ewell	73.64	85.87	94.32	76.06	83.22	98	70	14.8	13.2	1	1	0	0	3	7
Fort Brown	75.77	85.22	87.74	79.25	82.00	92	72	10.0	10.0	0	0	0	0	26	53
Ringgold Barracks	74.51	85.83	90.48	81.22	83.01	96	70	13.0	13.0	0	0	3	4	11	15
Fort McIntosh	72.22	86.77	93.70	82.29	84.50	101	72	16.5	12.5	0	0	4	5	10	17
Fort Inge	73.90	85.90	94.10	81.90	83.95	100	70	16.1	13.9	3	3	12	27	19	27
Fort Duncan	74.16	85.77	95.87	84.10	84.98	101	70	16.0	15.0	0	0	3	5	4	10
Fort Clarke	73.93	83.64	94.67	83.48	83.93	100	71	16.1	12.9	0	0	0	0	40	86

MONTH OF AUGUST, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	19	7	18	33	79	19	37	19	50	4.70	5.38	4.83	5.00	4.98	19	12	4	0	0.50	
15	22	0	0	38	50	0	0	62	76	5.96	4.03	7.77	5.90	5.91	24	7	4	0	0.26	
8	15	8	20	34	98	15	26	24	51	5.51	6.48	5.58	7.09	6.17	21	10	6	0	1.03	
17	46	40	25	5	12	8	26	11	32	5.83	6.70	5.83	6.51	6.22	20	11	7	0	0.46	
8	23	29	87	6	20	8	35	6	21	7.56	8.60	7.20	6.10	7.37	22	9	5	0	0.84	Inaccurate.
10	11	22	32	53	136	12	25	4	10	2.03	3.74	4.71	3.49	3.49	15	16	6	0	1.52	
11	22	18	48	15	40	8	26	6	11	5.64	6.83	5.83	7.12	6.36	24	7	7	0	1.13	
5	8	6	8	16	44	21	48	13	40	4.93	4.58	4.93	5.29	4.93	17	14	5	0	1.49	
9	18	7	17	22	43	17	33	10	21	5.16	5.54	6.19	5.96	5.74	22	9	5	0	3.00	
0	0	1	1	56	67	0	0	0	0	7.00	7.30	7.41	6.88	7.15	25	6	5	0	0.60	Inaccurate; rain incomplete.
0	0	19	62	29	111	31	92	9	23	4.67	5.06	5.93	6.41	5.52	19	12	13	0	3.82	
32	49	2	3	27	30	7	11	4	8	4.16	3.90	4.06	6.12	4.56	16	15	6	0	2.63	
54	171	1	1	8	27	0	0	1	2	3.83	4.25	4.25	6.41	4.69	18	13	18	0	5.83	
1	1	8	18	11	23	1	2	3	5	7.90	5.50	3.48	7.83	6.18	24	7	15	0	9.90	
17	32	13	17	19	41	11	22	2	4	6.45	7.00	4.77	5.25	5.87	20	11	19	0	11.23	
4	7	17	36	1	1	17	22	3	4	1.71	3.65	2.74	4.00	3.02	11	20	21	0	10.20	
2	3	14	24	14	22	32	65	25	41	1.67	3.58	3.67	6.19	3.78	16	15	15	0	6.81	
36	55	3	6	10	15	6	10	29	54	6.19	6.00	4.58	6.87	5.91	22	9	9	0	2.29	
2	3	3	5	7	16	14	30	6	12	4.06	3.96	1.51	3.41	3.24	11	20	11	0	7.41	
33	68	52	200	5	8	8	9	0	0	5.87	6.48	5.61	8.38	6.59	22	9	5	0	1.39	
12	16	23	45	12	25	3	3	0	0	5.51	5.80	4.48	5.93	5.43	18	13	7	0	0.88	
31	57	49	88	3	3	0	0	1	2	5.90	6.22	4.12	8.22	6.11	19	12	4	0	0.33	
7	10	18	25	4	5	33	31	8	13	4.70	6.32	6.00	6.35	5.84	21	10	5	0	1.47	
5	5	13	17	6	7	24	58	0	0	6.87	7.55	6.64	2.26	5.83	23	8	4	0	1.48	
4	4	0	0	23	25	7	9	2	3	7.51	8.00	6.87	9.61	8.00	25	6	3	0	1.55	
6	13	18	42	3	9	18	58	17	41	4.90	4.74	5.87	6.19	5.42	22	9	9	0	4.26	
2	5	21	64	9	31	29	106	2	9	6.13	6.00	5.90	6.10	6.03	22	9	10	0	3.86	Inaccurate.
9	15	38	78	12	23	18	30	7	10	4.80	6.64	5.80	5.12	5.59	21	10	6	0	1.75	
56	152	6	19	10	25	8	22	16	37	5.25	5.70	5.70	7.35	6.00	22	9	6	0	1.69	
11	21	29	63	26	64	9	17	13	26	5.12	5.64	5.51	6.87	5.79	21	10	9	0	2.28	
28	62	35	76	5	9	3	6	3	6	6.35	7.51	7.48	6.64	6.97	23	8	5	0	1.07	
9	16	56	89	20	39	16	25	0	0	8.87	8.96	9.03	8.20	8.89	29	2	1	0	1.65	
13	26	16	24	17	27	43	69	4	4	3.12	6.41	6.45	7.16	5.79	23	8	6	0	1.18	
0	0	2	4	0	0	30	43	0	0	6.16	7.77	7.80	1.54	5.82	21	10	4	0	1.27	
6	11	20	42	5	6	10	11	10	10	7.83	8.38	7.35	8.51	8.02	26	5	4	0	2.14	
78	241	27	83	3	11	0	0	0	0	3.29	3.93	4.51	7.64	4.84	17	14	2	0	0.75	
10	14	4	4	4	7	1	1	4	9	8.22	7.35	6.83	6.47	7.22	25	6	5	0	4.30	
59	149	19	48	6	10	1	1	0	0	7.52	7.00	5.71	9.10	7.33	26	5	3	0	0.04	
40	56	12	12	2	2	0	0	0	0	0.61	6.51	6.80	8.74	5.66	24	7	8	0	3.13	
63	147	2	4	2	2	3	3	0	0	6.19	5.09	7.03	8.51	6.71	24	7	7	0	3.68	
68	129	13	36	0	0	0	0	0	0	7.48	7.00	6.19	9.64	7.58	28	3	7	0	3.21	
22	64	24	33	24	47	13	28	2	5	4.67	4.83	4.87	6.77	5.29	20	11	9	0	5.00	
76	175	23	62	3	8	0	0	0	0	7.87	5.87	4.90	8.54	6.79	26	5	7	0	1.85	
96	189	5	7	0	0	0	0	0	0	7.97	6.48	4.96	10.00	7.35	26	5	2	0	0.20	
61	168	8	21	0	0	0	0	0	0	5.38	4.54	4.61	8.77	5.82	23	8	8	0	1.67	
112	265	0	0	0	0	0	0	0	0	6.02	5.85	4.77	8.42	6.26	23	8	6	0	0.90	
57	159	20	51	1	3	0	0	0	0	6.22	6.00	6.03	7.32	6.39	24	7	2	0	0.95	

MONTH OF AUGUST, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Bliss	72.48	81.05	88.90	76.20	79.66	98	68	18.3	11.7	0	0	14	29	10	11
Fort Fillmore	72.48	80.74	92.80	78.93	81.24	100	68	18.8	13.2	5	11	0	0	9	23
Fort Thorne	55.23	77.45	92.67	70.32	73.92	105	50	31.1	23.9	19	39	17	32	34	45
Fort Craig	64.61	86.45	90.74	73.61	78.85	103	59	24.2	19.8	11	14	20	26	27	34
Albuquerque	65.29	74.80	92.29	73.19	76.39	99	60	22.6	16.4	9	23	4	13	16	18
Santa Fé	58.32	68.72	78.09	65.80	67.73	88	54	20.3	13.7	9	14	20	24	16	18
Fort Union	52.90	68.35	71.87	62.09	63.80	82	48	18.2	15.8	4	6	2	4	3	3
Fort Massachusetts	50.83	68.80	75.54	56.19	62.84	85	43	22.2	19.8	32	46	2	4	7	15
Fort Defiance	54.83	67.77	75.51	61.74	64.96	87	46	22.0	19.0	10	12	0	0	0	0
Fort Yuma	82.87	89.54	99.77	90.29	90.62	109	77	18.4	13.6	5	8	11	11	32	43
San Diego	66.55	77.51	82.45	66.42	73.23	94	56	20.8	17.2	2	5	6	27	10	15
San Francisco	52.61	56.54	64.09	53.35	56.65	72	50	15.4	16.6	2	3	0	0	0	0
Benicia Barracks	53.74	62.80	79.36	61.80	64.42	99	50	34.6	14.4	0	0	0	0	0	0
Fort Reading	64.50	80.21	95.10	79.24	79.76	107	51	27.2	28.8	23	29	0	0	0	0
Fort Humboldt	52.35	60.12	65.03	54.12	57.90	73	49	15.1	8.9	1	2	0	0	1	2
Fort Jones	56.16	68.64	83.69	66.14	68.66	100	41	31.3	27.7	22	27	7	8	1	1
Fort Orford	53.35	62.08	65.70	56.90	59.50	78	45	18.5	14.5	1	2	0	0	0	0
Fort Vancouver	59.16	62.77	85.54	56.54	66.00	96	52	30.0	14.0	1	2	2	3	0	0
Fort Dalles	58.58	71.32	82.77	72.70	71.34	100	50	28.7	21.3	2	4	5	5	3	4
Fort Steilacoom	52.00	62.58	76.74	59.90	62.80	94	45	31.2	17.8	18	53	0	0	3	6

MONTH OF AUGUST, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in nches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
25	39	0	0	43	77	3	5	10	27	8.40	8.80	8.55	7.87	8.40	31	0	3	0	5.71?	
30	79	6	9	34	69	10	26	6	14	8.22	8.35	7.25	7.67	7.87	30	1	11	0	1.38	
16	42	6	8	4	9	4	4	11	20	9.78	9.61	9.06	8.77	9.23	31	0	11	0	6.01	
17	20	12	18	11	23	6	15	9	11	6.64	7.03	5.22	7.12	6.50	27	4	10	0	1.42	
20	28	10	15	13	18	10	17	15	19	6.58	6.74	5.16	5.61	6.02	24	7	9	0	1.19	
20	28	10	15	13	18	10	17	8	19	7.09	6.58	4.48	3.80	5.49	22	9	14	0	3.86	
9	16	22	40	5	9	30	33	3	7	5.09	5.39	4.84	4.26	4.90	24	7	10	0	1.75	
1	2	14	17	19	38	26	35	1	1	5.48	5.12	4.87	5.03	5.12	18	13	11	0	2.61	
5	7	48	71	14	19	2	4	4	8	6.96	6.96	5.54	5.32	6.20	26	5	21	0	5.24	
18	36	35	72	5	7	22	30	0	0	7.61	8.03	7.06	8.00	7.67	26	5	4	0	2.37	
10	16	5	10	44	94	26	49	5	9	1.55	4.45	6.90	6.74	4.91	19	12	2	0	1.35	
0	0	0	0	78	266	43	137	0	0	1.61	2.06	5.35	3.22	3.06	10	21	1	0	0.03	
0	0	0	0	0	0	124	342	0	0	4.41	5.86	6.86	9.41	6.64	24	7	0	0	0.00	
9	21	23	33	26	39	4	4	16	20	8.20	8.27	8.26	7.27	8.00	30	1	0	0	0.00	
7	17	0	0	6	7	0	0	34	59	1.16	1.77	6.25	3.51	3.17	14	17	0	0	0.00	
4	5	30	39	23	31	9	13	12	19	6.71	6.32	6.74	7.41	6.79	25	6	5	0	0.21	
22	68	3	6	0	0	0	0	97	333	5.61	6.06	8.06	6.59	6.58	20	11	5	0	2.56	
7	9	10	19	17	28	13	22	3	5	5.09	6.22	7.09	7.41	6.45	22	9	3	0	1.72	
1	1	3	4	98	147	4	12	0	0	6.35	6.54	7.70	8.00	7.15	24	7	2	0	0.18	
3	9	13	28	7	16	40	111	11	26	3.87	4.93	7.51	7.74	6.01	20	11	9	0	3.93	

MONTH OF SEPTEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	58.83	62.70	70.80	62.53	63.71	87	46	23.3	17.7	18	54	17	38	10	22
Fort Hamilton	62.46	67.10	72.80	65.90	67.06	87	48	19.9	19.1	0	0	23	41	0	0
Fort Columbus	62.13	65.60	72.53	65.13	66.35	90	47	23.7	19.3	4	6	32	84	3	5
West Point	58.73	63.33	71.26	63.66	64.25	90	43	25.8	21.2	47	146	2	7	1	2
Watervliet Arsenal	54.00	63.67	68.33	59.77	61.44	86	40	24.6	21.4	16	58	0	0	0	0
Fort Niagara	58.00	64.36	70.43	63.30	64.02	94	43	30.0	21.0	12	14	6	6	9	17
Alleghany Arsenal	60.00	71.46	79.70	68.53	69.92	96	38	26.1	31.9	32	58	6	7	8	11
Carlisle Barracks	60.10	69.23	77.23	68.06	68.66	96	38	27.3	30.7	5	13	13	39	14	30
Fort McHenry	65.53	71.00	77.50	71.13	71.29	92	48	20.7	23.3	10	18	22	54	2	4
Fort Monroe	74.00	77.43	80.90	74.07	76.60	97	64	20.4	12.6	0	0	29	85	44	87
Fort Moultrie	74.93	79.66	82.10	79.03	78.93	89	60	10.1	18.9	11	29	29	111	23	83
Fort Capron	77.00	86.56	87.86	81.30	83.18	95	73	11.8	10.2	2	6	36	119	26	85
Key West	80.40	83.33	84.66	81.86	82.56	88	77	5.4	5.6	0	0	39	140	29	106
Fort Myers	76.60	84.50	88.73	80.53	82.59	94	74	11.4	8.6	23	44	26	61	8	13
Fort Brooke	75.46	82.10	86.23	79.03	80.71	90	70	9.3	10.7	0	0	9	24	24	42
Fort Meade	75.13	82.17	87.17	80.13	81.15	93	72	11.9	9.1	38	62	6	25	28	80
Fort Barrancas	74.43	83.36	89.23	78.73	81.44	95	70	13.6	11.4	22	39	24	51	6	9
Mount Vernon Arsenal	72.93	81.00	86.75	77.63	79.58	98	69	18.4	10.6	9	15	35	69	12	28
Baton Rouge	73.40	79.38	82.95	76.71	78.11	93	71	14.9	7.1	5	11	19	40	78	170
Fort Washita	69.86	77.20	85.93	75.80	77.20	97	51	19.8	26.2	7	21	8	25	20	45
Fort Smith	69.93	75.40	86.36	77.83	77.38	98	53	20.6	24.4	2	4	7	22	40	90
Fort Gibson	69.63	80.16	90.56	78.10	79.61	101	51	21.4	28.6	15	25	6	16	8	12
Jefferson Barracks	69.20	74.43	85.13	74.80	75.89	99	50	23.1	25.9	6	8	1	2	12	16
St. Louis Arsenal	67.13	75.66	87.30	71.43	75.38	102	51	26.6	24.4	15	39	12	26	25	38
Newport Barracks	67.56	73.03	82.33	74.43	74.34	95	50	20.7	24.3	0	0	12	16	26	36
Fort Mackinac	54.26	62.86	65.65	56.13	59.72	82	42	22.3	17.7	8	27	2	7	15	46
Fort Brady	50.03	61.63	68.30	52.20	58.04	98?	39	40.0	19.0	11	37	2	3	15	35
Fort Snelling	52.63	63.06	70.13	60.83	61.66	88	39	26.3	22.7	9	11	12	26	2	3
Fort Ripley	50.16	59.43	69.23	55.53	58.59	88	35	29.4	23.6	2	3	18	37	2	3
Fort Ridgely	56.53	68.26	74.20	62.36	65.34	89	42	23.7	23.3	10	36	3	10	8	19
Fort Leavenworth	63.30	74.83	83.30	73.43	73.71	98	47	24.3	26.7	7	10	15	34	28	38
Fort Riley	62.83	70.30	80.40	75.60	72.28	98	46	25.7	26.3	0	0	0	0	5	8
Fort Kearney	57.03	66.20	77.56	63.63	66.10	97	44	30.9	22.1	16	20	13	19	9	15
Fort Laramie	59.96	64.66	76.50	66.66	66.95	85	50	18.1	16.9	0	0	0	0	64	86
Fort Arbuckle	69.66	77.10	86.56	75.80	77.28	98	46	20.7	31.3	22	31	3	3	8	17
Fort Belknap	69.03	80.13	88.33	77.33	78.71	97	48	18.3	30.7	2	6	21	64	6	17
Fort Chadbourne	67.70	77.23	87.90	71.20	76.01	96	52	20.0	24.0	5	9	6	22	20	64
Fort McKavett	69.07	74.40	83.13	75.67	75.57	91	56	15.4	19.6	5	21	27	65	10	22
Fort Merrill	73.46	83.76	89.06	78.06	81.09	97	67	15.9	14.1	6	20	8	11	0	0
Corpus Christi	77.69	82.83	84.83	81.13	81.62	90	69	8.4	12.6	22	98	9	21	20	55
Fort Ewell	72.13	80.70	94.26	78.43	81.38	99	66	17.6	15.4	8	19	6	19	5	14
Fort Brown	76.33	82.63	85.26	80.03	81.06	90	70	8.9	11.1	10	11	13	19	25	43
Ringgold Barracks	73.86	81.93	89.13	80.33	81.31	95	64	13.7	17.3	18	31	4	4	2	4
Fort McIntosh	73.16	82.06	89.46	79.96	81.16	99	64	17.8	17.2	10	19	14	17	5	5
Fort Inge	72.20	81.80	90.66	78.20	80.71	98	59	17.3	21.7	3	11	27	73	32	85
Fort Duncan	71.96	81.76	91.83	81.43	81.74	102	60	20.3	21.7	17	47	2	4	4	12
Fort Clarke	72.76	79.50	90.13	79.40	80.45	99	61	18.6	19.4	10	31	9	23	21	65

MONTH OF SEPTEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	14	2	4	18	43	24	62	19	40	4.70	4.83	5.73	5.53	5.20	18	12	10	0	3.34	
14	18	0	0	21	34	0	0	51	65	4.93	6.16	6.86	6.36	6.08	20	10	6	0	3.50	
7	17	10	27	33	84	14	18	14	36	5.06	5.20	5.43	7.03	5.68	19	11	5	0	1.90	
9	23	42	122	2	4	3	14	8	21	5.03	6.33	6.63	7.30	6.32	20	10	8	0	4.00	
6	8	49	168	1	2	6	21	7	22	6.30	7.97	8.30	5.59	7.04	20	10	7	0	2.82	
12	23	8	10	41	78	18	32	7	20	4.30	4.87	6.10	4.10	4.84	14	16	11	0	2.61	
3	5	20	60	11	28	4	11	11	30	4.50	6.40	5.83	6.40	5.78	20	10	4	0	1.76	
17	31	9	19	12	32	6	20	9	25	4.50	5.06	5.16	6.13	5.21	17	13	4	0	0.78	
12	20	4	12	24	36	27	36	8	11	5.06	6.80	6.13	6.23	6.06	20	10	4	0	4.10	
0	0	3	16	43	86	0	0	2	6	7.33	8.20	7.00	6.00	7.13	24	6	5	0	1.00?	
12	44	17	60	5	26	7	16	14	29	3.83	5.06	4.36	4.86	4.53	18	12	9	0	9.24	
20	64	8	18	11	36	9	27	10	31	3.10	3.13	3.26	3.00	3.12	9	21?	12	0	3.30?	
26	82	1	2	12	30	1	4	7	21	3.63	4.20	4.80	6.20	4.71	15	16	11	0	9.70	
2	3	9	27	17	50	0	0	0	0	8.60	8.43	4.63	7.76	6.60	24	6	5	0	1.50	
26	53	8	10	14	32	18	67	6	13	6.06	6.70	5.03	6.63	6.11	24	6	11	0	4.68	
1	4	13	37	1	6	20	49	3	9	1.10	3.83	3.97	5.20	3.52	10	20	14	0	2.99	Clearness in error.
12	14	9	18	9	11	8	18	28	37	1.80	3.23	3.20	4.86	3.27	15	15	9	0	3.47	Clearness in error.
35	54	2	2	5	9	4	9	14	31	5.66	5.04	3.03	5.01	4.69	17	13	10	0	6.82	
7	16	4	9	0	0	3	8	1	2	2.83	2.73	1.90	4.06	2.88	7	23	14	0	9.88	
23	47	49	84	4	10	0	0	0	0	4.60	4.46	4.06	6.80	4.98	15	15	6	0	1.17	
23	41	15	40	8	25	1	5	2	5	5.23	4.80	4.03	5.20	4.81	17	13	9	0	3.53	
12	23	46	106	9	11	0	0	0	0	4.80	5.00	4.16	7.20	5.29	16	14	7	0	0.68	
9	14	16	28	6	14	25	48	7	12	5.40	5.16	5.61	6.16	5.58	22	8	4	0	3.41	
8	10	11	18	14	27	14	33	0	0	7.13	6.33	6.10	2.23	5.45	20	10	5	0	1.35	
1	1	0	0	4	5	20	28	2	3	8.30	6.80	7.63	9.16	7.97	24	6	4	0	2.00	
10	24	17	54	11	39	28	97	16	47	3.63	4.13	5.41	4.53	4.42	15	15	11	0	3.22	
5	12	25	67	6	14	13	44	8	27	5.50	5.22	5.80	5.23	5.44	20	10	16	0	3.18	Inaccurate
12	25	51	114	6	14	6	10	11	30	4.46	5.36	3.96	5.93	4.93	15	15	13	0	6.55	
46	108	14	34	16	33	5	13	16	41	4.48	4.36	5.36	6.11	5.08	18	12	13	0	4.40	
19	57	38	93	25	66	9	21	8	19	4.03	4.53	3.66	4.56	4.19	12	18	8	0	2.58	
11	17	37	92	6	10	2	2	2	6	6.17	6.53	6.80	7.03	6.63	23	7	7	0	2.11	
9	12	55	82	26	42	8	12	0	0	8.63	8.53	7.56	8.86	8.39	26	4	3	0	1.85	
12	17	11	20	19	45	27	59	7	9	2.53	4.90	6.03	7.16	5.13	18	12	8	0	4.60	
1	1	17	21	7	10	27	31	1	1	5.06	7.53	7.53	1.83	5.49	21	9	5	0	1.40	
14	33	33	40	3	13	9	10	4	4	6.76	6.53	6.36	8.13	6.95	23	7	6	0	2.12	
64	206	14	36	7	20	0	0	1	2	2.16	2.03	2.13	4.04	2.59	7	23	8	0	1.53	
7	24	2	3	1	1	9	21	4	15	4.96	5.66	4.86	4.80	5.07	16	14	7	0	4.09	
51	102	16	50	3	6	1	1	4	6	6.30	4.97	4.87	7.30	2.59	19	11	5	0	3.86	
54	66	8	8	0	0	0	0	8	18	1.70	4.66	5.00	5.40	4.19	17	13	7	0	5.01	
39	125	0	0	0	0	2	2	0	0	5.06	4.33	4.40	6.06	4.96	18	12	6	0	6.82	
51	107	8	26	1	1	1	4	13	39	4.20	5.03	5.46	7.63	5.58	20	10	7	0	4.68	
18	30	13	14	17	28	14	20	6	10	4.43	4.16	3.70	5.26	4.39	17	13	8	0	11.31	
75	101	6	10	4	8	3	6	8	14	5.10	4.90	4.20	5.73	4.98	16	14	4	0	3.02	
45	148	7	12	0	0	0	0	13	29	4.70	4.53	4.16	8.46	7.96	16	14	9	0	5.34	
36	106	3	10	0	0	0	0	1	3	2.90	3.86	5.26	7.63	4.91	15	15	6	0	4.80	
70	158	0	0	0	0	1	1	1	3	2.46	5.20	5.70	7.73	5.27	21	9	5	0	4.81	
58	173	3	12	6	16	0	0	5	15	4.53	5.13	4.83	7.63	5.53	20	10	5	0	3.49	

MONTH OF SEPTEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Bliss	65.57	75.33	86.73	70.47	74.52	92	54	17.5	20.5	0	0	6	14	2	4
Fort Fillmore	65.83	74.96	87.20	74.36	77.43	93	53	15.6	24.4	3	7	15	46	7	13
Fort Thorne	52.31	72.89	90.19	64.40	69.95	95	48	25.1	21.9	5	5	10	21	20	32
Fort Craig	58.33	75.96	88.76	68.20	72.80	95	46	22.2	26.8	16	29	14	14	11	11
Albuquerque	58.53	68.46	83.13	67.56	69.42	90	49	20.6	20.4	17	45	25	68	8	21
Santa Fé	50.23	61.76	72.43	59.73	61.04	77	45	16.0	16.0	3	7	24	32	20	26
Fort Union	49.27	62.97	70.07	56.90	59.80	75	37	15.2	22.8	11	15	3	4	3	3
Cantonment Burgwin	43.43	60.93	68.36	52.60	56.33	76	31	19.7	25.3	23	40	6	10	0	0
Fort Massachusetts	41.36	56.50	65.33	47.76	52.74	71	31	18.3	21.7	27	38	2	3	0	0
Fort Defiance	46.13	59.33	79.40	52.60	57.11	79	37	21.9	20.1	5	8	0	0	2	2
Fort Yuma	75.36	84.60	95.96	86.00	85.48	102	68	16.5	17.5	16	24	17	24	18	24
San Diego	60.90	69.37	77.96	62.33	67.64	96	52	28.4	15.6	12	24	6	6	3	5
Fort Miller	60.37	74.43	89.03	74.10	74.48	99	54	24.5	20.5	3	5	2	3	7	12
San Francisco	53.40	57.60	64.20	54.06	57.31	75	49	17.7	8.3	0	0	1	1	0	0
Benicia Barracks	52.53	59.16	75.66	59.36	61.68	92	49	30.3	12.7	0	0	0	0	1	1
Fort Reading	56.70	73.30	88.20	71.47	72.42	99	52	26.6	20.4	14	14	8	9	0	0
Fort Humboldt	52.50	57.50	64.33	53.76	57.02	70	45	13.0	12.0	0	0	0	0	0	0
Fort Jones	45.83	61.33	77.88	65.86	62.72	86	38	23.3	24.7	21	27	6	9	3	3
Fort Orford	51.43	60.76	66.86	55.56	58.65	78	48	19.4	10.6	0	0	1	4	0	0
Fort Vancouver	56.30	59.93	72.56	53.36	60.54	84	50	23.5	10.5	0	0	0	0	0	0
Fort Dalles	52.86	63.63	75.26	64.23	64.00	87	45	23.0	19.0	1	2	2	4	5	9
Fort Steilacoom	49.33	60.13	74.46	54.53	59.61	83	40	23.4	19.6	24	75	0	0	7	12

MONTH OF SEPTEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
40	49	3	4	55	72	5	10	8	19	8.80	8.86	8.80	8.47	8.98	30	0	5	0	3.70	
22	57	6	9	12	26	21	52	1	1	8.96	8.93	8.63	8.63	8.79	30	0	3	0	0.95	
14	20	19	19	27	45	8	9	10	19	9.21	9.19	9.19	9.12	9.18	30	0	4	0	3.50	
16	17	15	23	22	25	14	14	5	6	7.83	8.03	6.93	7.43	7.56	28	2	8	0	2.13	
15	46	22	61	12	33	9	26	7	19	6.63	6.83	6.10	6.03	6.40	24	6	9	0	2.67	Therm. protected.
14	17	11	21	13	25	11	11	14	14	7.50	6.56	6.03	5.20	6.32	24	6	10	0	4.06	
7	12	27	33	7	11	16	16	4	9	5.07	5.20	5.27	3.37	4.73	18	12	7	0	2.99	
14	21	67	101	8	13	1	2	1	2	6.77	6.73	5.63	6.77	6.47	23	7	8	0	0.21	
7	9	6	7	33	50	24	30	1	1	5.93	5.50	5.45	7.66	6.13	21	9	3	0	1.53	
22	37	42	50	27	41	3	4	8	12	8.10	7.80	6.53	8.03	7.61	24	6	8	0	3.47	
15	26	25	40	7	9	10	16	1	2	8.60	7.50	8.20	9.10	8.35	25	5	2	0	0.17	
4	7	3	6	45	87	37	70	6	10	1.43	5.00	7.60	7.86	5.57	23	7	2	0	0.13	
12	26	23	37	15	33	32	89	8	11	9.27	9.33	9.67	10.00	9.57	30	0	1	0	0.12	
0	0	0	0	65	193	49	153	1	2	1.06	1.63	6.86	2.83	2.59	10	20	3	0	0.03	
2	2	0	0	16	51	98	300	0	0	3.43	4.60	6.86	7.53	5.61	21	9	0	0	0.00	
13	18	33	58	12	19	0	0	6	9	8.63	8.90	8.76	8.93	8.80	28	2	0	0	0.00	
1	1	0	0	6	7	1	2	28	53	1.20	1.46	6.20	3.53	3.10	12	18	0	0	0.00	
8	14	16	24	8	11	20	26	14	28	7.33	7.70	6.90	8.96	7.72	30	0	0	0	0.00	
36	63	3	4	0	0	0	0	78	190	4.06	5.10	6.30	5.33	5.20	17	13	3	0	0.19	
4	5	4	5	12	17	0	0	2	2	2.90	3.43	3.60	4.06	3.50	11	19	0	0	0.00	
0	0	8	11	87	131	11	28	4	10	7.16	7.26	8.14	8.00	7.65	27	3	3	0	0.84	
1	3	17	51	13	49	24	63	7	21	2.46	3.43	8.06	7.80	5.44	20	10	11	0	3.46	

MONTH OF OCTOBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	50.06	53.58	62.64	54.90	55.29	76	38	20.7	17.3	22	66	5	12	4	6
Fort Hamilton	51.90	55.51	62.16	55.03	56.15	79	33	22.8	23.2	0	0	25	27	0	0
Fort Columbus	51.41	54.80	61.61	55.03	55.71	76	36	20.3	19.7	5	10	28	49	3	8
West Point	48.58	53.09	59.90	53.19	53.69	76	32	22.3	21.7	41	131	1	2	0	0
Watervliet Arsenal	41.10	49.64	56.93	45.06	48.18	66	26	17.8	22.2	2	7	1	2	0	0
Fort Ontario	42.19	50.42	54.19	46.68	48.37	78	32	29.6	16.4	22	44	10	12	11	13
Alleghany Arsenal	44.83	52.64	63.16	52.64	53.32	73	32	19.7	21.3	30	35	16	24	8	11
Carlisle Barracks	46.90	56.29	64.22	53.74	55.29	82	25	26.7	30.3	15	47	0	0	6	10
Fort McHenry	51.51	58.09	65.48	57.38	58.11	78	35	19.9	23.1	19	27	15	36	2	2
Fort Monroe	59.97	65.93	69.60	62.71	64.55	84	44	19.4	20.6	1	5	42	132	18	33
Fort Moultrie	62.32	67.74	73.68	67.93	67.92	82	50	14.1	17.9	10	20	43	135	33	84
Fort Capron	73.00	80.32	82.32	75.25	77.72	89	66	11.3	11.7	5	13	55	267	27	91
Key West	76.12	78.48	80.70	77.64	78.24	84	72	5.8	6.2	0	0	71	274	23	64
Fort Myers	69.77	78.06	33.96	75.09	76.72	91	63	14.3	13.7	32	76	34	93	6	10
Fort Brooke	67.80	74.41	79.78	73.32	73.83	86	59	12.2	14.8	5	12	36	108	19	33
Fort Meade	67.68	74.65	81.45	73.84	74.40	87	60	12.6	14.4	51	134	9	28	19	58
Fort Barrancas	64.51	71.90	80.61	68.32	71.34	89	55	17.7	16.3	59	129	24	65	5	9
Mount Vernon Arsenal	61.00	69.87	79.03	66.79	69.17	91	50	21.8	19.2	18	33	23	45	16	39
Baton Rouge Barracks	63.70	69.54	77.27	69.29	69.95	84	55	14.1	14.9	2	4	18	39	66	161
Fort Washita	58.00	66.32	76.00	65.19	66.38	91	44	24.6	22.4	6	11	10	21	11	22
Fort Smith	57.29	62.93	74.19	64.38	64.70	91	46	26.3	18.7	7	16	4	9	45	90
Fort Gibson	57.70	66.90	76.96	65.12	66.67	94	38	27.3	28.7	21	46	7	12	7	9
Jefferson Barracks	54.70	61.19	69.06	59.80	61.19	82	35	20.8	26.2	6	8	4	10	37	56
St. Louis Arsenal	52.60	59.60	69.71	56.90	59.70	85	36	25.3	23.7	19	46	2	2	5	12
Newport Barracks	54.00	58.06	67.29	59.64	59.75	82	36	22.3	23.7	3	4	2	2	13	19
Fort Mackinac	46.87	51.51	53.25	46.80	49.61	64	29	14.4	20.6	9	25	0	0	23	78
Fort Brady	43.67	52.10	56.03	44.17	44.00	70	25	26.0	19.0	13	56	3	7	28	56
Fort Snelling	44.67	52.93	60.22	50.53	52.10	74	28	21.9	24.1	24	44	8	13	2	2
Fort Ripley	42.77	48.77	55.48	46.06	48.27	69	19	20.7	29.3	10	38	18	50	2	4
Fort Ridgely	47.61	52.12	60.16	51.22	52.78	79	26	26.2	26.8	13	19	11	22	2	3
Fort Leavenworth	52.23	61.13	70.23	58.97	60.64	88	33	27.4	27.6	10	14	11	18	38	73
Fort Riley	55.71	60.80	77.93	64.03	64.62	88	38	23.4	24.6	2	5	3	11	3	7
Fort Kearney	47.79	54.29	67.83	53.74	55.91	92	29	36.1	24.9	29	57	5	13	17	31
Fort Laramie	47.94	52.61	67.67	58.35	56.59	87	30	30.4	26.6	6	7	4	4	50	59
Fort Arbuckle	57.16	67.29	76.83	64.12	66.35	92	40	25.7	26.3	16	19	10	10	4	5
Fort Belknap	50.09	71.03	79.26	68.12	69.62	90	44	20.4	25.6	4	16	7	23	3	13
Fort Chadbourne	59.03	70.09	79.90	69.25	69.57	89	42	19.2	27.8	15	61	13	42	40	90
Fort McKavett	60.97	67.13	75.71	66.16	67.50	82	43	14.5	24.5	5	13	15	35	9	22
Fort Merrill	66.16	76.61	85.42	71.77	75.00	96	50	21.0	25.0	0	0	0	0	3	3
Fort Brown	70.20	78.74	80.27	76.58	76.44	91	60	14.6	16.4	11	13	13	18	28	32
Ringgold Barracks	67.09	75.67	84.93	76.23	75.98	89	55	13.0	21.0	8	8	3	3	28	33
Fort McIntosh	67.48	77.80	86.83	76.64	77.19	92	53	14.8	24.2	2	2	25	28	6	7
Fort Inge	64.38	75.58	84.70	71.12	73.95	92	44	18.0	30.0	12	26	23	54	31	73
Fort Duncan	65.41	75.48	85.83	76.28	75.75	92	47	16.3	28.7	5	7	1	5	1	1
Fort Clarke	66.35	74.22	82.00	70.70	73.32	90	48	16.7	25.3	0	0	12	32	21	65
Fort Bliss	57.48	71.26	82.89	66.06	69.42	92	39	22.6	30.4	3	5	13	20	2	2
Fort Fillmore	58.19	70.22	84.13	68.93	70.37	93	39	22.6	31.4	5	9	7	17	3	10

MONTH OF OCTOBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
7	11	9	18	19	39	14	37	38	62	1.70	3.23	3.54	2.35	2.71	8	23	10	0	1.47	
24	24	0	0	25	31	0	0	49	81	5.54	5.54	5.70	6.83	5.90	17	14	10	0	1.19	
15	29	51	10	27	49	10	20	27	66	5.16	5.06	5.61	7.41	5.81	18	13	7	0	1.80	
4	10	35	91	9	19	10	28	13	33	5.64	6.19	5.22	6.38	5.86	19	12	8	0	1.98	
6	17	37	106	15	49	8	26	11	41	4.06	5.67	6.01	5.56	5.52	17	14	9	0	2.05	Inaccurate.
8	8	13	14	8	10	19	31	20	82	3.29	3.29	2.91	0.90	2.60	10	18	8	0	0.82	First 3 days not observed.
3	3	9	28	18	46	19	62	2	3	2.35	4.54	4.96	5.67	4.38	18	13	13	0	2.89	
18	30	26	41	11	27	18	39	7	20	4.29	4.19	5.29	5.77	4.88	13	18	8	0	0.93?	
6	23	8	20	20	32	25	40	22	54	4.64	5.45	5.83	6.12	5.51	17	14	10	0	7.10?	
0	0	0	0	56	126	0	0	0	0	6.53	7.35	8.00	6.77	7.16	24	7	6	0	1.80?	Inaccurate.
3	4	7	13	9	32	12	29	5	12	5.45	6.84	7.16	7.81	6.81	25	6	4	0	1.12	
11	44	1	3	9	16	7	13	9	16	4.03	4.19	4.07	4.07	4.09	13	18	18	0	5.47	
18	41	0	0	1	1	1	1	8	14	3.41	4.61	4.16	7.12	4.82	17	14	12	0	4.73	
4	8	4	10	3	8	1	3	3	4	7.16	6.45	5.03	7.35	4.50	24	7	6	0	0.35	
12	20	4	5	8	17	9	22	15	35	5.67	6.00	5.83	7.35	6.21	26	5	5	0	1.77	
1	4	11	23	0	0	16	31	10	19	1.74	3.19	3.87	5.80	3.65	5	26	5	0	2.34	
7	19	2	4	4	11	8	13	13	20	3.16	4.61	4.78	6.81	4.84	13	18	7	0	7.14?	Rain overmeasured.
26	48	5	6	6	12	9	17	12	25	5.77	7.00	6.03	7.74	6.64	20	11	5	0	0.81	
17	40	3	7	3	7	9	17	3	7	4.09	4.90	4.48	6.25	4.93	16	15	7	0	4.38	
29	66	29	61	8	14	3	4	15	21	5.38	5.22	5.58	6.54	5.68	19	12	8	0	1.19	
14	31	11	31	6	17	3	6	6	25	4.16	5.19	5.35	6.29	5.27	17	14	6	0	2.85	
16	24	43	94	1	1	1	2	7	8	5.03	4.71	5.03	6.77	5.39	17	14	7	0	1.58	
12	21	5	10	6	15	10	27	10	29	4.67	5.67	5.45	7.32	5.78	19	12	9	0	3.87	
5	6	18	24	16	26	21	32	6	13	7.39	7.42	7.19	2.52	6.13	19	12	7	0	3.00	
8	8	2	2	17	18	17	28	7	13	5.58	5.54	6.22	7.67	6.25	20	11	5	0	2.22	
14	42	16	58	6	20	25	67	25	76	2.83	3.22	4.06	4.12	3.56	8	23	11	1	2.28	
9	16	36	82	6	17	10	34	2	8	4.80	4.30	4.00	4.12	4.31	15	16	9	0	3.40	
8	10	26	51	11	22	3	8	14	40	4.87	4.90	5.00	6.87	5.41	16	15	7	0	1.23	
36	93	18	48	4	9	4	6	24	63	2.83	3.03	3.77	4.74	3.59	10	21	9	0	0.91	
31	85	9	21	7	18	8	15	25	78	4.09	4.29	4.64	5.41	4.61	12	19	6	0	0.41	
10	20	16	43	7	12	15	25	8	21	6.26	6.32	6.84	7.09	6.63	21	10	9	0	3.30	
5	10	17	34	68	136	4	23	12	37	5.74	5.74	6.80	7.00	6.32	17	14	1	0	0.02	
4	12	19	54	18	56	16	38	13	24	2.32	4.80	5.41	6.58	4.78	17	14	5	0	1.47	
1	1	9	9	9	13	36	47	4	5	6.38	6.64	7.38	1.60	5.50	19	12	4	1	1.86	
20	45	25	49	7	12	13	18	4	6	6.35	6.83	7.35	8.51	7.26	24	7	4	0	0.58	
52	151	28	97	0	0	0	0	7	36	4.29	4.27	4.21	7.00	4.94	19	12	4	0	0.59	
20	29	11	20	2	11	0	0	1	4	4.29	5.16	6.06	6.96	5.62	15	16	5	0	3.30*	* "Approximate."
47	30	21	64	6	13	8	16	1	3	4.55	4.03	6.39	9.00	5.99	19	12	4	0	0.79	
60	72	15	16	7	12	6	7	2	2	4.16	6.38	5.84	8.00	6.10	22	9	4	0	0.64	
37	48	5	8	11	12	0	0	6	6	5.74	4.90	4.41	6.43	5.37	19	12	8	0	5.79	
62	89	17	23	1	1	0	0	3	6	4.64	5.35	5.61	6.51	5.53	16	15	4	0	0.92	
68	132	5	10	1	1	0	0	9	13	6.03	7.25	6.06	9.32	7.17	28	3	3	0	0.35	
24	77	1	2	0	0	0	0	2	7	4.77	4.90	6.25	7.80	5.93	21	10	3	0	0.33	
72	149	0	0	0	0	0	0	7	15	3.74	4.77	7.09	8.37	5.99	21	10	3	0	0.40	
70	207	2	8	0	0	2	6	11	33	5.00	5.61	6.48	9.09	6.55	24	7	3	0	0.55	
37	44	5	7	30	31	17	23	13	22	8.60	8.71	8.84	8.87	8.76	31	0	2	0	1.54	
13	47	2	3	48	102	18	55	1	6	9.19	9.16	9.06	9.03	9.11	31	0	4	0	0.39	

MONTH OF OCTOBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above. mean	Below mean.	N.		N. E.		E.	
Fort Thorne	36.83	60.58	85.80	57.31	60.13	95	25	34.9	35.1	18	40	28	56	2	4
Fort Craig	48.41	65.96	84.22	61.00	64.90	96	33	31.1	31.9	22	61	11	11	9	0
Albuquerque	49.22	64.43	75.64	61.22	62.64	87	34	24.4	28.6	6	18	33	96	13	19
Santa Fē	44.41	55.35	67.19	55.29	55.56	78	30	22.4	25.6	7	15	15	27	19	28
Fort Union	41.58	60.06	68.32	48.03	54.56	77	25	22.4	29.6	24	39	9	11	4	4
Cantonment Burgwin	36.54	54.48	65.74	44.83	50.40	75	24	24.6	26.4	31	73	8	17	0	0
Fort Massachusetts	35.25	50.12	57.09	41.32	45.94	69	18	23.1	27.9	39	58	1	3	1	4
Fort Defiance	38.48	45.54	68.44	43.12	48.89	76	29	27.1	21.9	35	74	12	24	0	0
Fort Yuma	66.90	77.61	88.58	75.90	77.25	105	52	27.8	25.2	30	46	19	31	13	16
San Diego	54.06	64.48	73.35	60.06	62.99	87	44	24.0	19.0	15	28	7	13	7	15
Fort Miller	55.11	63.06	77.14	64.16	65.12	97	46	31.9	19.1	0	0	6	8	27	36
San Francisco	53.80	60.45	65.74	55.93	58.98	80	49	21.0	10.0	2	6	6	13	3	6
Benicia Barracks	52.16	57.77	67.32	58.38	58.91	96	47	37.1	11.9	6	12	3	4	8	12
Fort Reading	54.20	61.68	70.51	62.54	62.23	98	46	35.8	16.2	35	60	14	19	0	0
Fort Humboldt	46.64	54.51	61.10	49.74	53.00	67	36	14.0	17.0	0	0	0	0	0	0
Fort Jones	38.72	51.25	62.16	47.87	50.00	87	25	37.0	25.0	15	18	1	1	3	6
Fort Orford	49.48	56.77	61.67	52.38	55.07	77	39	21.9	16.1	0	0	0	0	0	0
Fort Vancouver	49.83	50.32	56.12	51.59	51.96	58?	46	6.0	6.0	0	0	0	0	0	0
Fort Dalles	43.22	51.58	64.09	52.64	52.88	80	26	27.1	26.9	3	3	9	11	2	4
Fort Steilacoom	44.45	52.22	62.51	47.74	51.73	74	30	22.3	21.7	18	53	2	4	4	8

MONTH OF OCTOBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am' in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
3	11	25	28	22	39	19	29	7	8	9.24	9.70	9.64	9.55	9.66	31	0	0	0	0.00	
5	6	33	50	11	11	24	33	9	12	8.35	8.61	7.74	8.09	8.15	29	2	4	0	0.34	
25	77	19	72	5	17	7	22	3	10	7.64	7.77	7.03	7.41	7.46	27	4	6	0	1.37	
25	28	11	17	16	22	12	20	13	16	7.57	7.41	6.41	6.09	6.87	24	7	5	2	2.50	
3	3	27	46	0	0	5	5	20	22	6.48	6.81	6.13	6.77	6.55	25	6	5	2	0.88	
22	33	53	92	5	9	2	6	1	2	8.12	8.58	8.29	8.29	8.32	27	4	4	3	0.13	
3	5	4	4	44	91	19	27	2	2	6.32	7.38	6.74	7.22	6.91	24	7	3	2	0.35	
3	6	41	74	8	13	6	14	11	39	8.58	9.16	8.70	8.12	8.64	30	1	5	2	0.62	
6	8	12	20	9	14	15	23	11	15	7.90	8.25	7.96	8.96	8.27	28	3	1	0	0.30	
5	13	5	10	47	77	24	43	12	24	5.03	6.26	7.39	7.13	6.45	23	8	1	0	0.01	
22	33	11	16	19	30	22	32	12	21	7.57	7.33	8.43	8.55	7.97	26	5	2	0	0.68	
5	17	15	42	49	157	40	142	2	4	3.80	3.90	6.38	5.16	4.81	12	19	11	0	1.56	
9	20	0	0	3	4	89	209	0	0	3.74	5.19	4.67	6.74	5.09	14	17	8	0	1.12	
7	24	19	36	17	28	6	6	15	18	4.03	5.00	4.30	4.60	4.48	16	15	12	0	2.26	
20	42	1	3	1	2	0	0	12	28	5.51	5.51	6.74	5.96	5.93	22	9	10	0	3.69	
9	13	30	40	5	15	28	40	16	18	3.54	4.64	4.74	5.12	4.51	12	19	13	0	4.18	
72	244	0	0	0	0	0	0	46	89	2.29	3.16	3.25	3.96	3.19	12	19	14	0	11.10	
9	12	8	8	13	13	0	0	0	0	1.93	2.87	3.29	3.61	2.92	12	19	8	0	2.31	Temps. inaccurate.
4	5	7	8	86	122	3	7	2	4	5.25	5.74	5.74	5.54	5.57	18	13	11	0	1.91	
3	7	40	107	12	39	4	16	3	7	1.80	3.80	7.12	6.25	4.79	19	12	13	0	4.37	

MONTH OF NOVEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above Mean.	Below Mean.	N.		N. E.		E.	
Fort Independence	39.73	43.00	51.00	43.36	44.27	69	27	24.7	17.3	8	21	2	7	3	7
Fort Hamilton	40.93	44.93	47.20	42.93	43.90	66	29	22.1	14.9	7	11	10	21	0	0
Fort Columbus	40.93	42.83	47.60	43.33	43.67	66	31	22.3	12.7	6	17	13	30	0	0
West Point	40.00	42.63	45.93	41.30	42.39	67	30	24.6	12.4	21	82	3	12	0	0
Watervliet Arsenal	33.86	39.86	42.66	38.30	38.67	68	18	29.3	20.7	8	28	0	0	0	0
Fort Ontario	35.83	40.60	41.46	37.13	38.78	65	18	26.2	20.8	29	64	2	18	2	9
Alleghany Arsenal	29.60	39.13	45.00	36.96	37.92	62	24	24.1	13.9	7	13	6	7	4	5
Carlisle Barracks	37.86	41.36	46.20	41.00	41.60	64	25	22.4	16.6	17	51	1	1	11	20
Fort Delaware	40.94	45.86	50.56	44.64	45.55	65	30	19.4	15.6	5	20	9	20	0	0
Fort McHenry	46.66	54.56	54.83	46.16	50.55	68	30	17.4	20.6	16	29	9	18	0	0
Fort Monroe	48.36	55.23	57.87	49.93	52.85	75	37	22.2	15.8	0	0	14	47	30	74
Fort Moultrie	51.07	54.63	62.90	56.57	56.29	80	36	23.7	20.3	12	31	10	35	17	50
Fort Capron	59.86	68.90	72.10	62.76	65.90	84	42	18.1	23.9	21	56	9	37	9	27
Key West	70.30	73.23	74.90	72.66	72.70	83	58	10.3	14.7	5	20	71	249	8	23
Fort Myers	59.50	66.90	75.16	65.16	66.70	87	43	20.3	23.7	57	126	13	22	0	0
Fort Brooke	54.60	63.30	69.46	61.10	62.11	80	38	17.9	24.1	14	27	26	54	10	17
Fort Meade	61.08	70.42	78.92	70.67	70.27	85	50	14.7	20.3	15	33	0	0	12	27
Fort Barrancas	48.86	57.96	66.60	54.13	56.89	80	29	23.1	27.9	44	88	4	9	3	11
Mount Vernon Arsenal	46.36	55.06	65.53	52.08	54.76	77	28	22.2	26.8	8	24	15	39	4	8
Baton Rouge Barracks	49.06	55.65	67.66	55.93	57.07	79	31	21.9	26.1	32	100	10	24	35	84
Fort Washita	42.30	49.03	62.80	52.13	51.56	76	25	24.4	26.6	21	45	5	11	6	11
Fort Smith	39.20	44.40	59.30	49.00	47.97	72	23	24.0	24.0	8	31	4	9	31	44
Fort Gibson	38.46	45.70	58.13	46.93	47.30	73	20	25.7	27.3	30	80	4	4	5	5
Jefferson Barracks	38.60	43.16	50.56	44.53	44.21	71	24	26.8	20.2	14	29	6	9	14	26
St. Louis Arsenal	35.26	39.53	50.63	40.90	41.58	68	22	26.4	19.6	23	64	6	14	3	7
Newport Barracks	38.73	40.63	46.06	42.16	41.89	60	28	18.1	13.9	11	22	4	7	2	3
Fort Mackinac	30.60	33.66	38.80	31.56	33.66	54	11	20.3	22.7	27	91	12	39	7	15
Fort Brady	25.96	31.60	34.00	27.46	29.76	43	1	13.2	28.8	27	84	5	13	21	55
Fort Snelling	26.23	32.33	39.30	31.66	32.30	60	11	27.7	21.3	20	60	2	2	0	0
Fort Ripley	24.40	29.00	36.53	28.16	29.52	54	1	24.5	28.5	11	45	10	28	0	0
Fort Ridgely	28.53	32.56	40.16	32.73	33.49	68	13	24.5	20.5	2	3	0	0	1	2
Fort Leavenworth	33.40	40.47	50.43	41.20	41.37	68	15	26.6	26.4	44	86	2	4	3	4
Fort Riley	33.93	39.66	56.16	42.86	43.15	76	16	32.8	27.2	9	36	7	19	2	6
Fort Kearney	28.30	36.96	50.86	33.63	37.44	69	12	31.5	25.5	45	120	13	32	3	10
Fort Laramie	35.10	39.93	52.33	42.40	42.44	70	18	27.6	24.4	6	7	1	1	14	14
Fort Arbuckle	39.23	48.96	63.33	48.14	49.91	75	21	25.1	28.9	15	25	4	9	5	6
Fort Belknap	44.53	57.07	60.03	52.73	53.59	78	30	24.4	23.6	15	25	9	18	4	4
Fort Chadbourne	44.50	59.70	67.53	48.80	55.13	78	27	22.9	28.1	16	54	7	58	8	53
Fort McKavett	46.70	54.63	62.93	52.50	54.19	75	31	20.8	23.2	13	41	18	55	1	4
Fort Merrill	52.43	62.23	73.20	59.20	61.76	87	28	25.2	33.8	14	47	6	18	5	6
Fort Brown	63.13	72.13	76.50	69.63	70.35	85	44	14.6	26.4	13	16	17	19	8	9
Ringgold Barracks	55.33	65.36	76.03	64.96	65.42	86	30	20.6	35.4	30	49	5	7	15	18
Fort McIntosh	54.86	64.13	75.36	62.96	64.33	89	33	24.7	31.3	10	21	14	31	9	17
Fort Inge	49.73	62.80	73.00	55.63	60.29	82	27	21.7	33.3	34	78	27	54	19	49
Fort Duncan	51.76	59.40	72.90	60.03	61.02	86	30	25.0	31.0	6	18	6	22	1	3
Fort Clarke	52.06	60.63	70.70	51.90	60.32	81	36	20.7	24.3	14	46	17	52	13	38
Fort Davis	40.73	56.01	73.26	52.30	55.57	84	27	28.4	28.6	6	18	2	4	10	16

MONTH OF NOVEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
5	9	6	17	17	35	40	99	33	91	3.93	3.40	3.96	3.96	3.81	13	17	9	2	5.57	
2	4	0	0	31	49	0	0	67	125	4.80	5.46	5.26	5.16	5.07	16	14	9	2	5.70	
8	24	4	6	42	105	7	13	31	96	5.00	5.43	4.26	5.83	5.13	18	12	8	0	3.95	
5	17	34	114	4	11	13	44	30	119	5.13	4.53	3.16	5.50	4.58	14	16	9	2	5.65	
2	7	29	88	11	33	11	32	6	21	5.53	5.20	6.00	5.60	5.58	19	11	6	2	2.40	Inaccurate.
6	12	22	41	31	93	11	27	12	60	2.10	1.60	1.93	0.66	1.57	9	21	6	5	1.09	
6	12	18	44	29	100	26	85	8	21	2.63	2.20	1.93	3.53	2.57	9	21	12	6	1.88	
1	2	21	45	7	13	45	114	13	41	3.96	4.43	3.30	3.96	3.91	12	18	10	1	2.30	
9	30	3	9	29	73	10	18	52	147	5.55	5.82	5.51	5.24	5.53	19	11	9	0	2.84	
2	4	7	20	13	24	43	85	25	47	5.33	5.46	5.43	5.66	5.47	17	13	8	0	7.30?	
2	7	0	0	72	178	1	3	0	0	7.00	7.00	8.00	7.00	7.25	22	8	5	0	1.30	
1	1	4	12	14	44	29	91	26	73	6.23	6.83	6.70	7.30	6.79	23	7	4	0	1.16	
8	26	3	4	13	28	12	30	40	113	5.33	6.06	5.07	6.03	5.62	20	10	8	0	1.41	
12	30	2	8	12	31	2	2	7	26	3.13	4.83	4.83	5.96	4.68	19	11	5	0	0.25	
3	4	12	25	4	10	2	10	12	38	7.76	7.70	6.83	7.86	7.54	24	6	4	0	0.45	
8	15	2	3	21	52	10	20	18	37	4.90	5.70	5.90	6.80	5.82	24	6	5	0	1.75	
0	0	4	6	0	0	11	22	4	7	1.58	3.33	4.25	5.17	3.58	5	7	3	0	0.02	First 12 days.
9	27	1	2	4	11	9	20	40	76	5.83	6.03	6.13	7.60	6.30	19	11	4	0	0.76	
9	21	11	21	12	29	14	30	46	119	7.03	7.73	6.73	8.01	7.37	23	7	4	0	2.34	
10	21	6	14	2	4	18	39	4	9	4.40	5.93	5.83	6.70	5.71	17	13	1	0	0.45	
4	8	25	46	13	18	15	22	13	28	6.13	6.33	6.33	6.96	6.44	20	10	6	0	3.57	
1	3	27	60	4	8	8	20	9	44	5.20	4.80	5.26	5.80	5.26	17	13	5	0	1.63	
14	24	31	54	2	2	0	0	5	8	6.43	5.36	5.26	6.66	5.93	18	12	5	0	2.06	
8	22	2	5	16	26	13	43	16	49	4.02	5.03	5.33	5.66	5.01	17	13	4	2	3.13	
0	0	7	14	15	20	26	50	14	38	7.26	7.60	7.63	2.47	6.24	17	13	3	1	1.45	
0	0	0	0	1	1	53	87	7	9	4.36	4.70	5.10	6.10	5.11	17	13	5	2	2.98	
9	37	17	62	8	49	12	58	25	79	2.36	1.83	2.03	1.53	1.94	5	25	6	10	3.66	
1	2	22	59	14	40	13	53	1	4	2.28	2.15	2.23	3.13	2.43	7	23	2	14	3.07	
8	10	12	20	14	36	19	61	19	64	6.43	5.63	5.66	6.26	6.00	18	12	1	6	0.60	
18	47	11	25	6	17	18	78	37	151	2.63	3.66	4.00	4.36	3.66	13	17	1	7	0.24	
6	13	15	34	8	11	19	62	61	254	4.60	5.10	4.23	4.90	4.70	17	13	2	8	1.13	
8	20	6	12	16	31	4	14	32	97	5.57	6.17	6.80	6.93	6.37	18	12	4	1	1.20	
2	7	28	40	43	86	10	37	12	32	6.63	7.30	8.66	7.76	7.59	25	5	2	1	0.61	
1	1	3	9	1	4	17	33	38	74	3.40	5.50	6.26	7.43	5.75	24	6	1	1	0.75	
0	0	21	35	7.	7	51	54	12	18	6.03	7.53	7.66	2.23	5.86	22	8	1	4	0.73	
1	1	18	39	7	13	16	22	10	24	8.06	8.36	8.16	8.43	8.25	24	6	3	0	3.46	
10	17	13	14	14	18	22	25	16	28	6.11	7.26	7.25	7.40	7.00	24	6	2	0	0.05	
5	14	0	0	6	35	1	4	5	30	7.76	7.43	7.86	7.63	7.67	24	6	6	0	*6.30	* "Approximate."
7	23	21	71	37	97	2	2	16	50	6.10	6.57	7.43	7.93	7.00	23	7	6	0	1.19	[Inaccurate.
34	47	39	32	19	27	1	3	2	3	5.83	5.80	6.46	7.23	6.33	21	9	4	0	3.20	
41	55	11	16	5	5	8	9	12	19	4.73	4.93	4.56	6.06	5.07	16	14	7	0	7.47	
39	67	17	23	3	4	1	2	3	7	5.13	5.93	6.23	6.96	6.06	18	12	3	0	2.10	
28	51	12	25	4	5	4	6	19	25	5.93	6.23	6.83	7.40	6.50	19	11	3	0	1.88	
8	28	0	0	0	0	0	0	2	5	5.66	5.96	7.30	8.00	6.73	20	10	6	0	3.71	
22	46	0	0	0	0	0	0	27	61	5.53	6.50	6.66	7.63	6.58	21	9	5	0	3.28	
58	107	3	10	9	30	4	12	19	70	6.83	6.56	7.40	8.20	7.25	22	8	5	0	3.22	
3	8	6	8	29	65	2	3	3	12	7.50	7.76	8.13	8.53	7.98	25	5	4	0	....	

MONTH OF NOVEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Bliss	38.87	51.57	64.87	50.33	51.41	74	22	22.6	29.4	0	0	35	48	4	5
Fort Fillmore	40.00	52.30	68.86	51.76	53.23	74	28	20.8	25.2	5	15	0	0	19	61
Fort Thorne	24.33	43.52	71.12	38.25	44.30	79	11	34.7	33.3	25	32	33	60	20	21
Fort Craig	34.23	43.43	67.43	45,06	47.52	84	22	36.5	25.5	35	78	8	14	4	4
Albuquerque	32.93	40.93	52.63	36.16	40.66	58	24	17.3	16.7	41	108	18	50	8	27
Santa Fé	31.83	40.13	49.43	38.63	40.00	61	24	21.0	16.0	4	6	29	70	16	30
Fort Union	30.43	43.70	50.53	35.27	39.98	57	10	17.0	30.0	35	39	4	4	10	14
Cantonment Burgwin	22.16	37.30	47.10	33.00	34.89	58	10	23.1	24.9	58	115	4	5	2	5
Fort Massachusetts	20.90	30.30	41.66	26.23	29.77	48	0	18.2	29.8	47	51	4	9	3	7
Fort Defiance	26.90	34.43	56.73	34.29	38.09	72	17	33.9	21.1	36	65	15	29	0	0
Fort Yuma	54.60	65.33	78.06	66.16	66.04	84	46	18.0	20.0	46	50	14	14	7	7
San Diego	47.36	54.80	70.23	54.20	56.65	80	34	23.4	22.6	19	32	12	20	8	11
Fort Miller	48.97	57.63	70.50	56.63	58.41	79	44	20.6	14.4	0	0	11	22	38	76
San Francisco	50.53	57.50	64.43	53.30	56.44	73	45	16.5	11.5	4	10	12	31	0	0
Benicia Barracks	47.93	55.60	67.43	54.66	55.90	74	42	18.1	13.9	1	1	3	5	30	34
Fort Reading	42.21	50.90	68.11	54.00	53.80	84	33	30.2	20.8	43	61	15	20	0	0
Fort Humboldt	42.37	48.16	58.23	45.73	48.62	64	33	15.4	15.6	0	0	0	0	0	0
Fort Jones	29.48	34.20	58.53	41.35	40.89	72	22	31.1	18.9	22	38	3	8	4	10
Fort Orford	47.93	53.06	61.70	50.30	53.25	74	40	20.8	13.2	0	0	0	0	0	0
Fort Vancouver	51.83	54.06	54.30	49.76	52.49	56	48	3.5	4.5	0	0	0	0	0	0
Fort Dalles	38.40	42.60	52.36	44.00	44.34	60	30	15.7	14.3	1	1	18	25	3	3
Fort Steilacoom	42.70	47.90	54.83	45.23	47.67	60	32	12.3	15.7	4	10	4	10	6	14
Great Salt Lake City	29,56	43.16	56.30	37,90	41.73	64	21	22.3	20.7	19	27	2	2	9	14

MONTH OF NOVEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
19	26	2	4	4	5	11	14	40	76	8.16	8.50	8.80	8.73	8.55	30	0	0	0	0.00	
5	7	3	11	32	70	18	44	7	17	9.33	9.33	9.26	9.26	9.29	30	0	3	0	0.67	
19	31	4	4	2	2	7	7	14	14	9.40	9.73	9.63	9.76	9.63	30	0	2	0	0.99	
2	2	12	17	4	6	19	32	32	47	8.00	8.16	7.76	8.90	8.20	28	2	3	0	1.09	
3	9	1	3	5	14	17	45	22	59	7.80	7.56	7.26	7.95	7.64	27	3	4	0	1.35	
11	22	8	17	10	22	19	35	16	26	7.40	7.16	7.13	6.83	7.13	25	5	3	2	3.54	
1	1	5	6	7	12	3	3	35	74	6.10	5.83	5.43	6.63	5.90	19	11	3	0	1.80	
12	21	40	70	0	0	0	0	1	2	8.16	8.16	8.03	8.36	8.18	25	5	2	1	1.03	
4	4	4	4	1	1	32	45	8	14	8.03	7.70	7.03	8.53	7.82	26	4	0	5	....	
3	7	28	40	4	7	10	17	20	36	8.50	9.46	9.23	9.36	9.14	28	2	2	2	1.49	
2	2	7	7	5	5	6	6	25	34	8.83	9.03	9.06	9.10	9.02	30	0	0	0	0.00	
15	25	12	21	9	15	36	60	1	3	3.60	5.63	7.73	7.53	6.12	22	8	1	0	0.02	
21	38	11	15	17	23	9	16	12	21	7.57	7.13	8.16	9.00	7.96	24	6	0	0	0.00	
8	23	16	38	18	56	52	156	7	21	3.03	5.13	7.06	7.13	5.59	20	10	1	0	0.40	
3	6	0	0	0	0	74	146	0	0	5.66	5.83	6.53	7.86	6.42	24	6	1	0	0.22	
5	10	6	9	4	5	5	6	20	30	6.27	6.24	7.10	7.50	6.78	26	4	3	0	0.87	
10	19	1	5	7	10	0	0	8	22	6.93	7.10	8.13	8.26	7.60	25	5	2	0	0.98	
2	3	44	60	4	7	9	16	5	9	3.26	4.06	6.63	7.53	5.38	17	13	5	0	0.48	
62	190	0	0	0	0	0	0	57	132	3.90	4.40	5.56	5.33	4.80	14	16	7	0	4.59	
16	16	0	0	1	1	0	0	0	0	1.33	3.40	3.66	4.53	3.23	12	18	14	0	3.19	
2	3	8	11	82	92	8	16	3	5	4.46	4.63	6.00	5.96	5.26	18	12	7	0	1.41	
5	12	62	157	5	23	3	7	0	0	1.33	2.06	4.86	4.30	3.14	8	22	13	0	7.37	
2	2	0	0	9	13	12	19	24	48	8.16	8.30	8.63	8.33	8.36	26	4	1	0	....	

MONTH OF DECEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Independence	22.77	26.22	32.06	26.74	26.95	46	6	19.0	21.0	10	31	3	14	0	0
Fort Hamilton	25.09	28.09	31.19	28.87	28.31	44	4	15.7	24.3	0	0	29	55	0	0
Fort Columbus	25.41	26.41	30.71	27.58	27.52	43	5	15.5	22.5	4	6	32	61	2	4
West Point	23.70	24.77	27.87	25.67	25.50	46	— 1	20.5	26.5	34	168	3	8	0	0
Watervliet Arsenal	15.09	19.03	23.09	20.30	19.38	40	—12	20.6	41.4	22	71	0	0	0	0
Fort Ontario	20.74	23.52	27.32	22.71	23.57	43	— 2	19.4	25.6	32	101	1	1	8	17
Alleghany Arsenal	25.38	29.12	38.87	28.74	30.53	56	6	25.5	24.5	10	18	9	11	4	4
Carlisle Barracks	26.32	28.58	31.90	28.03	28.70	44	6	15.3	22.7	13	37	2	4	11	23
Fort Delaware	28.50	31.50	35.80	30.50	31.58	47	9	15.4	22.6	5	7	16	31	3	9
Fort McHenry	27.19	33.06	40.32	34.48	33.76	52	14	18.2	19.8	17	28	19	22	4	6
Fort Monroe	37.00	42.00	46.06	38.00	40.75	54	22	13.2	18.8	0	0	11	28	14	36
Fort Moultrie	43.42	45.48	54.29	48.68	47.97	67	34	19.0	14.0	11	29	19	48	13	40
Fort Capron	54.38	61.09	67.67	58.06	60.30	83	36	22.7	24.3	9	34	11	42	22	114
Key West	63.74	67.03	69.16	65.64	66.39	80	54	13.6	12.4	7	26	78	269	1	2
Fort Myers	53.80	60.16	67.80	58.87	60.18	81	38	20.8	22.2	37	89	33	57	0	0
Fort Brooke	51.74	56.41	62.51	55.68	56.53	76	32	19.5	24.5	8	20	17	46	11	27
Fort Barrancas	41.81	49.51	60.35	46.72	49.60	69	27	19.4	22.6	31	65	19	47	4	9
Mount Vernon Arsenal	41.16	47.19	60.16	48.38	49.22	73	24	23.8	25.2	11	24	7	13	12	25
Baton Rouge	44.67	50.22	62.25	51.56	52.17	75	28	22.8	24.2	19	56	19	47	56	132
Fort Washita	35.35	40.61	54.32	44.45	43.70	66	17	22.3	26.7	18	38	1	2	2	2
Fort Smith	33.35	37.29	51.57	41.12	40.83	67	16	26.2	24.8	18	52	4	9	33	35
Fort Gibson	33.77	39.42	51.96	40.77	41.50	67	14	25.5	27.5	39	111	0	0	2	3
Jefferson Barracks	31.23	35.64	37.67	37.00	36.02	62	13	26.0	23.0	23	37	9	18	20	27
St. Louis Arsenal	29.00	33.30	42.72	32.34	34.34	57	11	22.7	23.3	38	74	2	2	3	4
Newport Barracks	33.06	34.45	39.03	34.93	35.37	56	20	20.6	15.4	25	41	0	0	1	1
Fort Mackinac	19.35	22.19	23.48	20.64	21.41	40	— 6	18.6	27.4	21	63	30	112	15	52
Fort Brady	10.48	17.86	21.26	11.45	15.26	43	—16	27.7	31.3	17	48	4	10	27	62
Fort Snelling	15.77	19.25	26.80	20.80	20.65	45	— 8	24.3	28.7	16	34	4	6	5	12
Fort Ripley	13.32	16.45	25.64	17.35	18.19	48	— 9	29.8	27.2	16	47	15	41	0	0
Fort Ridgely	17.45	19.41	28.22	20.25	21.33	46	— 8	24.7	29.3	5	18	6	10	6	10
Fort Leavenworth	28.61	32.77	44.77	31.39	34.38	59	7	24.6	27.4	32	56	5	9	10	10
Fort Riley	26.87	32.25	50.06	35.51	36.17	69	8	32.8	28.2	9	42	5	14	1	1
Fort Kearny	22.41	28.80	45.06	24.32	30.15	68	0	37.8	30.2	51	117	7	19	5	9
Fort Laramie	31.51	38.12	47.06	39.06	38.94	64	10	25.1	28.9	0	0	0	0	13	13
Fort Arbuckle	32.67	40.70	55.29	42.93	42.90	71	12	28.1	30.9	29	38	0	0	0	0
Fort Belknap	34.45	45.51	60.48	45.67	46.53	75	22	28.5	24.5	33	46	7	10	1	1
Fort Chadbourne	36.58	47.35	67.80	41.16	45.72	75	22	29.3	23.7	9	16	8	23	0	0
Fort McKavett	35.48	42.55	53.77	43.16	43.66	68	21	24.3	22.7	15	46	17	62	4	5
Fort Merrill	42.61	50.29	64.77	51.00	52.17	81	25	28.8	27.2	22	61	3	8	6	10
Fort Brown	53.19	60.61	69.22	59.90	60.73	85	34	24.3	26.7	32	46	11	17	1	1
Ringgold Barracks	55.03	68.41	56.83	56.95	56.44	85	29	28.5	27.5	15	35	19	21	19	22
Fort McIntosh	43.51	52.77	65.54	53.41	53.80	84	31	30.2	22.8	15	28	18	24	3	3
Fort Inge	38.38	50.45	65.74	46.80	50.34	84	23	33.7	27.3	35	78	31	65	11	24
Fort Duncan	38.32	47.96	64.19	50.09	50.14	75	24	24.9	26.1	15	53	0	0	0	0
Fort Clarke	42.38	51.67	63.45	49.32	51.70	81	29	29.3	22.7	26	72	4	9	15	47
Fort Davis	34.32	47.83	60.25	41.03	45.86	78	18	32.1	27.9	17	28	2	5	3	6
Fort Bliss	37.61	45.90	59.35	47.40	47.56	78	23	30.4	24.6	0	0	24	38	7	7

MONTH OF DECEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S. E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
2	3	2	3	38	82	15	36	50	133	4.19	4.45	4.22	2.90	3.94	11	20	8	8	3.23	
4	4	0	0	11	11	0	0	78	141	3.19	4.00	3.96	5.09	4.06	13	18	3	11	3.35	
0	0	0	0	27	59	9	15	48	128	3.74	3.61	3.74	5.51	4.15	10	21	2	10	8.60	
2	4	29	49	4	14	4	12	37	138	4.35	3.70	3.83	4.32	4.05	14	17	5	10	2.64	
4	10	22	75	10	28	16	69	18	75	6.08	6.73	6.09	5.46	6.09	21	10	1	7	0.98	Inaccurate.
28	77	23	39	14	14	8	10	0	0	1.26	0.80	1.48	0.32	0.86	10	21	2	13	1.69	Clearness inaccurate.
6	9	14	26	17	50	23	86	10	27	2.41	2.54	2.64	2.90	2.62	8	23	9	6	1.67	
10	21	24	48	7	15	23	51	27	116	3.29	3.12	4.32	4.90	3.90	10	21	6	7	1.63	
3	6	8	9	21	52	2	11	58	179	5.38	4.90	5.58	6.16	5.50	15	16	6	4	2.60	
1	1	5	13	15	43	13	15	43	110	3.54	3.80	4.25	4.51	4.02	12	19	4	4	3.90	
4	13	0	0	58	165	3	17	31	127	6.84	6.70	6.00	7.00	6.63	17	14	3	2	1.20	Inaccurate.
2	5	1	2	11	30	40	101	24	70	6.00	5.97	5.58	5.94	5.77	18	13	9	0	1.74	
2	4	6	10	6	12	34	99	29	111	4.49	4.61	4.87	5.96	4.98	18	13	10	0	1.68	
8	15	0	0	10	16	2	7	8	21	3.16	4.18	4.54	5.64	4.38	13	18	9	0	8.45	
3	5	7	13	3	9	4	16	10	24	6.74	6.41	7.03	8.06	7.06	23	8	7	0	1.65	
13	36	6	14	17	42	15	38	31	81	3.64	6.03	5.80	7.74	5.80	22	9	8	0	4.85	
5	14	0	0	3	6	10	18	47	96	0.90	4.22	4.16	4.77	3.51	11	20	4	0	3.64	
13	26	11	22	14	30	12	25	36	98	5.93	5.64	5.58	6.16	5.83	20	11	5	0	0.73	
4	14	3	6	0	0	20	45	4	10	3.83	4.32	3.96	5.41	4.38	12	19	5	0	1.82	
5	10	15	19	33	50	8	11	30	45	5.93	6.22	6.19	8.00	6.58	21	10	5	1	1.42	
0	0	20	33	5	5	1	3	4	16	4.58	5.12	5.19	5.37	5.06	18	13	6	0	2.54	
24	69	13	33	10	19	0	0	3	4	5.67	5.96	6.03	6.93	6.15	22	9	4	0	0.77	
11	12	7	7	3	3	16	22	9	35	4.16	4.90	4.77	5.32	4.81	17	14	5	1	1.11	
0	0	22	31	4	7	19	34	7	14	7.80	8.26	7.55	1.58	6.27	18	13	2	1	0.90	
0	0	5	5	3	3	29	45	4	8	3.45	4.12	4.80	5.70	4.52	17	14	3	3	1.65	
2	11	7	30	10	44	10	25	24	110	1.06	2.16	2.77	2.48	2.12	4	27	2	8	0.98	
0	0	19	48	10	24	11	47	0	0	2.12	3.12	3.20	2.13	2.64	7	24	5	13	0.45	
5	9	13	20	12	26	6	7	19	40	4.83	5.12	4.70	6.69	5.33	17	14	0	5	0.64	
27	74	9	20	10	23	13	42	23	75	5.03	5.03	4.16	4.38	4.65	13	18	0	4	0.15	
18	49	3	7	12	27	14	37	50	158	4.83	5.64	5.22	6.32	5.50	19	12	0	5	2.80	
8	15	6	9	15	25	26	48	19	62	6.45	6.84	8.00	7.19	7.12	24	7	0	2	0.09	
9	15	40	63	36	62	8	20	12	41	7.42	7.64	7.67	8.16	7.72	27	4	0	0	0.00	
0	0	6	6	2	5	8	18	48	82	3.60	5.38	2.93	3.93	3.96	26	5	0	1	0.00	Temp. inaccurate.
0	0	4	7	18	29	83	123	4	7	3.46	7.64	7.87	2.54	5.38	27	4	0	3	0.05	
0	0	16	40	15	24	39	43	16	20	7.80	8.25	7.83	8.64	8.13	26	5	1	0	0.40	
16	27	10	13	22	27	10	11	20	24	1.51	4.29	3.87	2.80	3.12	16	15	2	0	0.05	
0	0	0	0	0	0	9	33	11	43	8.16	7.29	7.90	7.48	7.70	23	8	3	0	2.60*	* "Approximate."
0	0	11	30	49	121	11	21	9	31	5.84	6.74	7.19	7.14	6.73	21	10	2	0	0.95	
16	20	41	54	16	17	5	9	1	3	4.80	5.48	5.45	4.83	5.14	19	12	3	0	2.13	
25	34	24	30	0	0	3	7	24	27	5.74	5.09	4.09	6.39	5.33	19	12	6	0	1.88	
29	41	5	5	2	2	9	18	19	42	2.77	4.45	5.16	6.58	4.74	18	13	4	0	0.68	
13	18	38	43	1	2	4	7	25	43	6.06	6.70	7.32	7.54	6.90	22	9	2	0	0.42	
3	11	1	3	0	0	0	0	0	0	6.90	6.16	6.41	7.25	6.70	21	10	2	0	0.50	
26	52	0	0	0	0	0	0	25	50	5.54	6.00	7.06	7.19	6.45	22	9	2	0	0.18	
13	47	12	31	1	4	20	60	25	83	5.54	7.03	7.03	7.32	6.73	22	9	1	1	0.35	
5	6	25	43	15	22	8	20	8	12	7.12	7.77	8.25	7.51	7.66	25	6	1	1	0.00	Slight rain and snow.
26	41	13	23	14	18	12	19	19	25	8.00	8.23	8.40	8.22	8.21	29	2	2	1	0.50	

MONTH OF DECEMBER, 1854.

STATIONS.	THERMOMETER.									WINDS.					
	Mean Temperature.					Range.				No. of Observations					
	S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Max.	Min.	Above mean.	Below mean.	N.		N. E.		E.	
Fort Fillmore	34.54	43.45	64.41	44.51	46.73	76	25	29.3	21.7	0	0	0	0	2	7
Fort Thorne	26.13	41.75	59.87	36.15	41.05	76	7	35.0	34.0	11	17	8	8	3	5
Fort Craig	26.03	30.83	61.25	37.54	38.90	71	14	32.1	24.9	29	60	33	38	1	1
Albuquerque	26.26	35.44	52.13	32.29	36.48	58	19	21.5	17.5	33	89	58	162	7	21
Santa Fé	27.61	33.41	40.29	31.96	33.32	55	22	21.7	11.3	6	22	12	29	13	31
Fort Union	25.87	38.42	45.19	29.32	34.70	58	10	23.3	24.7	50	104	6	12	3	8
Cantonment Burgwin	17.51	29.16	40.96	25.29	28.23	55	8	26.8	20.2	56	101	1	1	0	0
Fort Massachusetts	12.09	21.51	33.19	18.93	21.43	49	— 1	27.6	22.4	50	60	4	6	7	11
Fort Defiance	21.51	28.10	49.12	28.39	32.03	65	10	33.0	22.0	49	81	10	20	0	0
Fort Yuma	51.87	58.87	69.38	57.77	59.47	73	42	13.5	17.5	58	60	6	6	0	0
San Diego	41.55	50.09	67.61	51.16	52.60	74	31	21.4	21.6	10	13	22	38	26	39
Fort Miller	41.55	46.42	60.45	48.00	49.10	65	35	15.9	14.1	0	0	1	2	32	51
San Francisco	46.96	53.33	60.45	49.58	52.63	70	38	17.4	14.6	29	76	43	116	1	2
Benicia Barracks	41.93	46.77	58.67	47.32	48.67	68	31	19.3	17.7	0	0	21	39	65	130
Fort Reading	34.15	39.70	59.17	46.20	44.80	71	27	26.2	17.8	35	45	13	23	0	0
Fort Humboldt	40.00	44.38	55.51	42.87	45.69	63	31	17.3	14.7	0	0	0	0	0	0
Fort Jones	22.00	25.30	47.82	31.20	31.58	52	17	20.4	14.6	30	45	2	3	3	4
Fort Orford	43.83	46.09	55.19	47.67	48.19	66	34	17.8	14.2	0	0	0	0	0	0
Fort Vancouver	32.67	36.38	41.87	36.32	36.81	54	21	17.2	15.8	3	5	10	30	0	0
Fort Dalles	32.51	35.25	41.58	38.93	37.07	52	21	14.9	16.1	8	12	20	30	3	4
Fort Steilacoom	39.45	41.54	48.80	42.45	43.06	58	26	14.9	17.1	5	17	0	0	10	23
Great Salt Lake City	22.93	30.45	43.61	28.42	31.35	50	12	18.6	19.4	34	46	18	22	10	12

MONTH OF DECEMBER, 1854.

WINDS.										WEATHER.							RAIN AND SNOW.			REMARKS.
and sum of force.										Mean clearness of sky.					Days.		Days.		Am't in inches.	
S.E.		S.		S. W.		W.		N. W.		S. R.	9 A. M.	3 P. M.	9 P. M.	Mean.	Fair.	Cloudy	Rain.	Snow.		
8	26	2	2	32	72	24	52	5	14	9.06	9.13	8.96	8.96	9.03	30	1	2	0	0.15	
12	20	3	3	19	23	24	37	39	61	8.93	8.94	8.70	8.93	8.90	31	0	2	0	0.35	
3	7	6	12	7	7	13	15	38	48	6.90	7.25	6.83	7.67	7.16	25	6	2	1	0.08	
16	36	4	11	1	1	0	0	4	10	6.03	6.09	6.05	7.00	6.29	24	7	2	2	0.92	
14	30	5	10	19	40	29	63	26	90	6.45	6.70	6.09	6.39	6.38	25	6	2	3	1.08	
5	10	0	0	4	10	21	64	21	46	6.45	6.83	7.00	6.83	6.80	22	9	0	3	0.60	
6	11	56	90	1	1	1	1	0	0	9.70	8.00	7.83	6.96	7.62	26	5	0	3	0.06	
0	0	0	0	1	1	52	61	7	11	7.58	7.19	7.19	7.74	7.42	27	4	0	3	2.30	
10	12	27	42	4	8	2	2	7	15	9.09	9.06	8.80	8.45	8.85	28	3	2	0 ?	1.20	
0	0	4	4	1	1	8	8	46	51	7.77	7.87	7.16	7.83	7.66	27	4	2	0	0.57	
18	30	7	12	24	41	14	21	3	4	6.26	7.64	7.61	7.60	7.28	24	7	2	0	3.34	
46	102	6	7	19	27	12	19	7	10	6.42	6.40	6.26	6.93	6.50	21	10	2	0	1.25	
7	27	23	65	2	4	15	46	2	4	5.06	5.83	6.74	8.03	6.41	21	10	3	0	0.60	
0	0	1	1	1	1	24	58	0	0	5.32	5.22	6.09	8.38	6.25	24	7	3	0	0.55	
3	5	9	12	9	16	10	11	24	37	5.97	6.10	6.14	6.87	6.27	23	8	3	0	1.45	
17	44	0	0	0	0	0	0	15	29	5.90	5.90	8.54	6.96	6.82	23	8	3	0	1.18	
3	4	67	116	3	4	5	9	2	3	5.96	6.74	7.06	8.19	7.00	28	3	3	1	1.13	
62	248	0	0	0	0	1	2	62	140	4.69	4.38	4.41	4.49	4.49	14	17	10	0	6.37	
12	14	2	3	10	11	0	0	0	0	3.83	6.45	6.32	6.45	5.79	21	10	10	0	8.34	
9	12	16	22	51	81	14	22	2	3	3.09	3.38	3.83	3.32	3.40	10	21	7	1	2.50	
9	24	64	203	6	19	3	11	1	2	1.12	1.83	3.45	3.74	2.53	8	23	13	0	12.87	
4	9	1	5	5	14	7	14	22	55	7.61	8.13	8.29	8.06	8.02	26	5	2	1	....	

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° '	° '	*Feet.*									
Fort Independence...	42 20	71 00	50	25.52	25.00	32.92	42.41	58.76	65.91	74.07	69.70	63.71
Fort Hamilton.......	40 37	74 02	45	31.49	30.95	37.70	45.57	59.37	68.69	77.17	74.67	67.06
Fort Columbus.......	40 42	74 01	23	28.71	28.17	36.17	45.09	59.96	68.49	75.89	72.88	66.35
West Point.	41 23	74 00	167	28.00	27.40	36.35	45.91	60.57	68.06	75.59	72.75	64.25
Watervliet Arsenal..	42 43	73 43	50	21.86	19.54	31.55	41.27	54.89	67.10	77.17	69.77	61.44
Fort Ontario........	43 20	76 40	290	......	......	......	......	......	......	......	......	......
Fort Niagara........	43 18	79 08	250	25.04	23.23	32.37	41.41	54.98	67.58	72.84	69.62	64.02
Alleghany Arsenal...	40 32	80 02	704	29.08	33.49	40.36	49.30	61.17	71.15	78.18	76.38	69.92
Carlisle Barracks....	40 12	77 14	500	......	......	......	......	......	......	......	73.61	68.66
Fort Delaware.......	39 35	75 34	10	32.38	34.56	43.18	50.98	64.50	......	......	......	......
Fort McHenry.......	39 17	76 35	36	33.61	36.47	44.40	49.00	64.29	72.00	78.32	75.45	71.29
Fort Monroe.........	37 00	76 18	8	41.47	43.82	50.82	57.16	68.74	77.20	80.21	79.55	76.60
Fort Moultrie........	32 45	79 51	25	40.83	53.09	62.72	62.76	73.35	78.55	82.06	82.37	78.93
Fort Pierce*.........	27 30	80 20	30	67.91	67.33	73.01	71.10	78.41	82.09	84.16	83.37	83.18
Key West Barracks..	24 32	81 48	10	71.75	71.95	76.56	73.89	80.84	83.34	83.30	82.59	82.56
Fort Myers..........	26 38	82 00	50	67.56	67.39	73.74	71.07	79.13	82.35	81.91	81.85	82.59
Fort Brooke.........	28 00	82 28	20	62.94	62.36	70.06	70.07	77.49	80.51	81.08	79.59	80.71
Fort Meade.........	28 01	82 00	80	63.75	63.33	70.64	68.10	76.31	79.10	80.17	79.99	81.15
Fort Barrancas......	30 18	87 27	20	54.71	54.56	64.98	62.93	75.40	81.00	84.55	84.10	81.44
Mt. Vernon Arsenal..	31 12	88 02	200	51.52	53.18	65.24	62.30	74.64	79.17	78.90	81.17	79.58
Baton Rouge Bar'ks..	30 26	91 18	41	53.43	56.48	66.24	64.63	75.10	80.61	80.09	81.52	78.11
Fort Towson........	34 00	95 33	300?	36.32	49.29	59.55	61.90	......	......	......	......	......
Fort Washita........	34 14	96 38	645	36.76	48.94	60.41	61.43	69.80	75.48	83.13	83.40	77.20
Fort Smith..........	35 23	94 29	460	33.92	47.01	57.01	60.62	67.51	75.48	83.15	82.70	77.38
Fort Gibson.........	34 47	95 10	560	33.72	46.38	56.57	60.49	67.61	75.74	84.62	85.20	79.61
Jefferson Barracks...	38 28	90 15	472	28.48	40.04	48.34	56.79	68.44	74.78	85.80	82.12	75.89
St. Louis Arsenal.....	38 40	90 05	450	25.47	36.66	46.10	55.41	66.36	74.75	82.25	81.30	75.38
Newport Barracks....	39 05	84 29	500	31.75	39.60	46.74	53.20	64.00	72.13	79.54	78.13	74.34
Fort Mackinac.......	45 51	84 33	728	13.09	15.89	26.40	37.06	47.62	59.96	67.12	62.47	59.72
Fort Brady..........	46 30	84 43	600	11.02	12.98	23.14	40.87	46.36	60.54	65.20	61.27	58.04
Fort Snelling........	44 53	93 05	820	1.30	15.40	30.74	48.54	57.82	70.01	75.04	71.12	61.66
Fort Ripley.........	46 19	94 19	1130	2.10	10.88	27.26	45.58	52.11	64.01	68.93	61.78	58.59
Fort Ridgely........	44 15	94 45	1100?	5.68	19.49	36.96	54.03	62.32	70.52	77.60	74.80	65.34
Fort Leavenworth...	39 21	94 44	896	24.68	35.53	45.14	56.06	65.45	72.85	81.19	79.10	73.71
Fort Riley..........	39 03	96 25	1300?	24.67	38.00	46.66	56.96	64.00	72.66	83.69	84.78	72.28
Fort Kearny........	40 38	98 57	2360	18.26	30.37	36.76	51.22	59.31	68.92	75.16	76.10	66.10
Fort Laramie........	42 12	104 47	4519	22.60	36.40	41.06	50.62	56.92	67.73	75.24	76.46	66.95
Fort Arbuckle.......	34 27	97 09	1000?	36.16	47.75	57.39	60.82	68.64	74.96	83.29	83.95	77.28
Fort Belknap........	33 08	98 48	1600?	41.01	52.33	63.15	65.77	71.66	78.79	83.86	80.75	78.71
Clear Fork of Brazos.	32 30	99 45	2300?	40.44	50.43	62.11	......	......	......	......	......	......
Fort Chadbourne....	31 38	100 40	2120	38.73	46.94	63.58	63.17	70.08	74.00	78.54	82.94	76.01
Fort McKavett......	30 55	100 05	2060	42.89	51.52	62.50	64.04	70.33	76.80	78.74	80.10	75.57
Fort Merrill.........	28 17	98 00	150?	55.14	59.76	75.50	76.54	80.73	84.82	85.91	84.39	81.09
Fort Ewell..........	28 05	98 57	200?	50.47	58.12	70.34	72.50	77.45	81.61	82.22	83.22	81.38
Corpus Christi.......	27 47	97 27	20	......	......	......	......	76.61	83.27	83.40	84.61	81.62
Fort Brown.........	25 54	97 26	50	39.34	62.45	71.87	73.90	81.00	83.67	84.06	82.00	81.06
Ringgold Barracks...	26 23	99 02	200?	55.72	62.38	74.10	76.39	81.74	84.30	82.65	83.01	81.31
Fort McIntosh......	27 31	99 21	400?	53.02	60.02	74.23	77.19	81.41	83.69	84.06	84.50	81.16

* Designated as *Fort Capron* during the latter part of the year.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1854.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
55.29	44.27	26.95	44.70	69.89	54.42	25.82	48.71	99	— 2	50.3	50.7	Boston harbor, Mass.
56.15	43.90	28.31	47.55	73.51	55.70	30.25	51.75	95	12	43.2	39.8	New York harbor.
55.71	43.67	27.52	47.07	72.42	55.24	28.13	50.71	93	11	42.3	39.7	New York harbor.
53.69	42.39	25.50	47.61	72.13	53.44	26.97	50.04	97	4	47.0	46.0	New York.
48.18	38.67	19.38	42.90	71.35	49.43	20.26	45.99	96	—10	50.0	56.0	New York.
48.37	38.78	23.57	......	......	......	......	......	....	— 2	....	....	New York.
......	......	......	42.92	70.01	......	......	......	95	6	....	....	New York.
53.32	37.92	30.53	50.28	75.24	53.72	31.03	52.57	100	5	47.4	47.6	Pittsburg, Pennsylvania.
55.29	41.60	28.70	......	......	55.18	......	......	97	6	....	....	Carlisle, Pennsylvania.
......	45.55	31.58	52.89	......	......	32.84	......	....	15	....	....	Island in Del. riv., near New-
58.11	50.55	33.76	52.56	75.26	59.98	34.61	55.60	98	14	42.4	41.6	Baltimore, Md. [castle, Del.
64.55	52.85	40.75	58.91	78.99	64.67	42.01	61.14	96	24	34.8	37.2	Near Norfolk, Virginia.
67.92	56.29	47.97	66.28	81.00	67.71	47.30	65.57	98	31	32.4	34.6	Sullivan's Island, n'r Charles-
77.72	65.90	60.30	74.17	83.21	75.60	65.18	74.54	97	40	22.5	34.5	Indian river, Fla. [ton, S. C.
78.24	72.70	66.39	77.10	83.08	77.83	70.03	77.01	90	58	13.0	19.0	Florida.
76.72	66.70	60.18	74.65	82.04	75.34	65.04	74.27	95	47	20.7	27.3	Charlotte harbor, Florida
73.83	62.11	56.53	72.54	80.39	72.22	60.61	71.44	93	40	21.5	31.5	Tampa Bay, Florida.
74.40	70.27	......	71.68	79.75	75.27	......	......	93	40	....	....	Interior of Peninsula, Florida.
71.34	58.89	49.60	67.77	83.22	70.56	52.96	68.63	104 ?	30	35.4	38.6	Pensacola Bay, Florida.
69.17	54.76	49.22	67.39	79.75	67.84	51.31	66.57	97	25	30.4	31.6	Near Mobile, Alabama.
69.95	57.07	52.17	68.66	80.74	68.38	54.03	67.95	95	20	27.1	47.9	Baton Rouge, Louisiana.
......	......	......	......	......	......	......	......	....	5	....	....	Near Red river, Indian Ter.
66.38	51.56	43.70	63.88	80.67	65.05	43.13	63.18	102	4	38.8	59.2	Near Red river, Indian Ter.
64.70	47.97	40.83	61.71	80.44	63.35	40.59	61.52	102	5	40.5	56.5	Arkansas river, Arkansas.
66.67	47.30	41.50	61.56	81.85	64.53	40.53	62.12	105	1	42.9	61.1	Near Arkansas riv., Ind. Ter.
61.19	44.21	36.02	57.86	80.90	60.43	34.85	58.51	102	— 3	43.5	61.5	Miss. riv., n'r St. Louis, Mo.
59.70	41.58	34.34	55.96	79.43	58.89	32.16	56.61	107	— 3	50.4	59.6	St. Louis, Missouri.
59.75	41.89	35.37	54.65	76.60	58.66	35.57	56.37	96	— 1	39.6	57.4	Newport, Kentucky.
49.61	33.66	21.41	37.03	63.18	47.66	16.80	41.17	86	—15	44.8	56.4	Isl. of Mackinac, Lake Mich.
44.00	29.76	15.26	36.79	62.34	43.93	13.09	39.04	94	—27	55.0	66.0	Sault Ste. Marie, Michigan.
52.10	32.30	20.65	45.70	72.06	48.69	12.45	44.72	95	—36	40.3	80.7	Mississippi river, Minnesota.
48.27	29.52	18.19	41.65	64.91	45.46	8.99	40.25	97	—50*	56.7	90.3	Upper Mississippi river, Min.
52.78	33.49	21.33	51.10	74.31	50.54	15.50	47.85	98	—24	50.2	71.8	St. Peter's river, Minnesota.
60.64	41.37	34.38	55.55	77.71	58.57	31.53	55.84	103	— 8	47.2	63.8	Missouri river, Kansas.
64.62	43.15	36.17	55.87	80.38	60.02	32.95	57.30	105	—10	47.7	67.3	Kansas river, Kansas.
55.91	37.44	30.15	49.10	73.39	53.15	26.26	50.47	99	—16	48.5	66.5	Platte river, Nebraska.
56.59	42.44	38.94	49.53	73.14	55.33	32.65	52.66	94	—21	41.3	73.7	N. Fork of Platte riv., Nebras
66.35	49.91	42.90	62.28	80.73	64.51	41.94	62.37	105	— 1	42.6	63.4	Near Washita river, Ind. Ter.
69.62	53.59	46.53	66.86	81.13	67.31	46.62	65.48	101	7	35.5	58.5	Upper Brazos river, Texas.
......	......	......	......	......	......	......	......	....	— 2	....	....	Clear Fork of Brazos, Texas.
69.57	55.13	45.72	65.61	78.49	66.90	43.80	63.70	94	6	30.3	57.7	N'r Upper Colorado riv., Tex.
67.50	54.19	43.66	65.62	78.55	65.75	46.02	63.98	91	11	27.0	53.0	San Saba river, Texas.
75.00	61.76	52.17	77.59	85.04	72.62	55.66	72.73	100	22	27.3	50.7	Neuces river, Texas.
......	......	......	73.43	82.35	......	......	......	99	19	....	....	Neuces river, Texas.
......	......	......	......	83.43	......	......	......	89	....	....	....	Corpus Christi bay, Texas.
76.44	70.35	60.93	75.59	83.24	75.95	60.91	73.92	98	30	24.1	43.9	Rio Grande, Texas.
75.98	65.42	56.44	77.41	83.32	74.24	58.18	73.29	100	29	26.7	44.3	Rio Grande, Texas.
77.19	64.33	53.80	77.61	84.08	74.23	55.61	72.88	102	24	29.1	48.9	Rio Grande, Texas.

* "Quicksilver receded entirely into the bulb of the thermometer. Fifty grains placed in a charcoal cup completely frozen."—Assist. Surgeon Letherman.

POSITION OF STATIONS, MEAN TEMPERATURES

STATIONS.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.
	° ′	° ′	*Feet.*									
Fort Inge	29 09	99 47	845	47.24	56.04	67.54	64.06	74.89	81.91	83.03	83.95	80.71
Fort Duncan	28 42	100 30	800 ?	50.25	58.20	68.67	72.18	78.92	81.87	83.52	84.98	81.74
Fort Clarke	29 17	100 25	1000 ?	48.41	55.01	66.37	68.72	75.00	79.81	81.97	83.93	80.45
Fort Davis	30 26	103 37	4700	......	......	......	......	......	......	......	......	......
Fort Bliss	31 44	106 25	3830	......	......	......	......	......	......	85.75	79.66	74.52
Fort Fillmore	32 13	106 42	3937	48.62	50.41	59.71	66.10	68.59	80.61	85.12	81.24	77.43
Fort Thorne	32 38	107 10	4500 ?	41.81	40.57	50.73	60.42	67.06	72.37	78.27	73.92	69.95
Fort Conrad	33 34	107 09	4576	36.82	41.08	50.08	......	......	......	......	......	......
Fort Craig	33 26	107 08	4480 ?	......	......	......	60.78	63.56	75.51	82.14	78.85	72.80
Albuquerque	35 06	106 38	5032	36.46	40.70	49.35	59.02	62.47	73.83	78.87	76.39	69.42
Santa Fē	35 41	106 02	6846	28.51	34.07	41.46	49.80	54.18	68.18	71.80	67.73	61.04
Fort Union	35 54	104 57	6670	32.32	36.02	40.91	48.01	52.46	59.95	66.66	63.80	59.80
Cantonment Burgwin	36 30	105 50	8000 ?	26.90	......	......	......	......	......	......	......	56.33
Fort Massachusetts	37 32	105 23	8365	......	......	......	......	49.41	57.50	64.07	62.84	52.74
Fort Defiance	35 44	109 15	7200 ?	24.35	30.65	37.04	46.54	51.08	62.40	70.95	64.96	57.11
Fort Yuma	32 43	114 36	120	54.17	59.18	64.50	74.71	74.12	85.40	94.05	90.62	85.48
San Diego	32 42	117 14	150	51.90	52.50	54.62	62.60	60.69	65.04	73.14	73.23	67.64
Fort Jurupa	34 00	117 25	1000 ?	50.32	53.08	54.49	......	......	......	......	......	......
Fort Miller	37 00	119 40	402	43.60	49.57	52.98	62.54	66.80	76.17	90.92	......	74.48
San Francisco	37 48	122 26	150	47.93	51.72	52.00	56.11	53.56	55.30	57.25	56.65	57.31
Benicia	38 03	122 08	64	42.59	48.85	50.27	57.00	56.40	62.45	68.37	64.42	61.68
Fort Reading	40 30	122 05	674	40.00	47.26	53.61	60.36	66.92	72.47	83.75	79.76	72.42
Fort Humboldt	40 46	124 09	50	40.83	43.54	47.37	54.06	53.94	58.04	56.71	57.00	57.02
Fort Jones	41 36	122 52	2570	31.36	35.02	41.16	51.02	53.55	58.76	71.07	68.66	62.72
Fort Orford	42 44	124 29	50	......	......	......	......	......	......	58.14	59.50	58.65
Columbia Barracks	45 40	122 30	50	......	38.05	45.00	52.43	57.18	56.85	67.90	66.00	60.54
Fort Dalles	45 36	120 55	350	21.98	38.94	46.00	53.51	58.94	63.51	71.51	71.34	64.00
Fort Steilacoom	47 10	122 25	300	30.61	39.64	43.87	50.83	55.57	58.96	63.71	62.80	59.61
Great Salt Lake City	40 46	112 06	4350	......	......	......	......	......	......	......	......	......

NOTE.—The monthly temperatures at *Fort Merrill*, from August, 1853, to February, 1854, contain minor errors of computation as printed. The corrections are made in the summary for 1854, and in the consolidated temperature tables.

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1854.

Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.	Max.	Min.	Above mean.	Below mean.	LOCALITY.
73.95	60.29	50.34	68.83	82.96	71.65	51.21	68.66	97	20	28.3	48.7	Leona river, Texas.
75.75	61.02	50.14	73.26	83.46	72.84	52.86	70.60	101	20	30.4	50.6	Eagle Pass of Rio Grande, Tex.
73.32	60.32	51.70	70.03	81.90	71.36	51.71	68.75	96	17	27.2	51.8	Las Moras, Texas.
......	55.57	45.86	......	......	......	......	......	....	18	....	....	Limpia riv., El Paso route, Tex.
69.42	51.41	47.56	......	......	65.12	......	......	101	23	....	....	Rio Grande, near El Paso, Tex.
70.37	53.23	46.73	64.80	82.32	67.01	48.59	65.68	106	20	40.3	45.7	Rio Grande, Southern N. Mex.
60.13	44.30	41.05	59.40	74.85	58.13	41.14	58.38	113	5	54.6	53.4	N'r Santa Barbara, R. Grande,
......	......	......	......	......	......	......	......	....	5	....	....	N'r Valverde, N. M. [N. M.
64.90	47.52	38.90	58.14	78.83	61.74	38.93	59.41	107	....	47.6	54.4	8 miles south of Fort Conrad,
62.64	40.66	36.48	56.95	76.36	57.57	47.88	59.69	102	5	42.3	54.7	New Mexico. [N. M.
55.56	40.00	33.32	48.48	69.24	52.20	31.97	50.47	92	— 6	41.5	56.5	New Mexico.
54.56	39.98	34.70	47.13	63.47	51.45	34.35	49.10	86	1	36.9	48.1	Moro river, N. M. [N. M.
50.40	34.89	28.23	......	......	47.21	......	......	....	—13	....	....	Near Taos, Upper Rio Grande,
45.94	29.77	21.43	......	61.47	42.82	......	......	89	— 1	....	....	Sangre de Cristo val., N. M.
48.89	38.09	32.03	44.89	66.10	48.03	29.01	47.01	95	—20	48.0	67.0	Cañoncito, Western N. M.
77.25	66.04	59.47	71.11	90.02	76.26	57.61	73.75	113	26	39.3	47.7	Colorado river, California.
62.99	56.65	52.60	59.30	70.47	62.43	52.33	61.13	99	31	37.9	30.1	California.
......	......	......	......	......	......	......	......	....	28	....	....	Rio Santa Ana, California.
65.12	58.41	49.10	60.77	......	66.00	47.42	......	115	23	....	....	San Joaquin valley, California.
58.98	56.45	52.63	53.89	56.40	57.58	50.76	54.66	78	27	23.3	27.7	California.
58.91	55.90	48.67	54.56	65.08	58.83	46.70	56.29	102	19	45.7	37.3	California.
62.23	53.80	44.80	60.30	78.66	62.82	44.02	61.45	110	15	48.5	46.5	Upper Sacramento val., Cal.
53.00	48.62	45.69	51.79	57.55	52.88	43.35	51.39	78	16	26.6	35.4	Humboldt bay, California.
50.00	40.89	31.58	48.58	66.16	51.20	32.65	49.65	100	5	50.3	44.7	Scott's val., Klamath riv., Cal.
55.07	53.25	48.19	......	......	55.66	......	......	78	33	....	....	Near Cape Orford, Oregon.
51.96	52.49	36.81	51.54	63.58	55.00	......	......	96	*20	....	....	Oregon, (Fort Vancouver.)
52.88	44.34	37.07	52.82	68.79	53.74	32.66	52.00	101	—15	49.0	67.0	Columbia river, Oregon.
51.73	46.67	43.06	50.09	61.82	52.67	37.77	50.59	94	— 1	43.4	51.6	Puget's Sound, Wash'n Ter
......	41.73	31.35	......	......	......	......	......	....	12	....	....	Utah.

* In February; January not observed.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1854.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Independence	2.50	3.36	2.55	5.40	4.28	2.00	4.44	0.50	3.34	1.47	5.57	3.23	12.23	6.94	10.38	9.09	38.64
Fort Hamilton	3.05	4.45	0.65	9.58	6.09	4.25	2.23	0 26	3.50	1.19	5.70	3.35	16.32	6.74	10.39	10.85	44.30
Fort Columbus	2.60	4.00	0.70	8.80	7.70	2.20	1.90	1.03	1.90	1.80	3.95	8.60	17.20	5.13	7.65	15.20	45.18
West Point	3.52	5.04	2.81	10.53	5.08	1.62	3.73	0.46	4.00	1.98	5.65	2.64	18.42	5.81	11.63	11.20	47.06
Watervliet Arsenal	3.50	2.77	2.73	3.98	1.58	2.31	1.54	0.84	2.82	2.05	2.40	0.98	8.29	4.69	7.27	7.25	27.50
Fort Ontario	....	...	....	....	....	....	....	....	....	0.82	1.09	1.69	......	......	......	......	......
Fort Niagara	1.63	2.52	1.87	2.25	3.90	1.71	4.03	1.52	2.61	....	....	....	8.02	7.26	......	......	......
Alleghany Arsenal	2.23	2.33	2.82	4.21	2.24	2.06	1.45	1.13	1.76	2.89	1.88	1.67	9.27	4.64	6.53	6.23	26.67
Carlisle Barracks	....	....	....	....	....	....	....	1.49	0.78	0.93?	2.30	1.63	......	......	4.01	......	......
Fort Delaware	2.30	5.45	0.88	6.40	3.95	....	....	....	....	....	2.84	2.60	11.23	......	......	10.35	......
Fort McHenry	4.40	4.90	4.70	7.20	5.20	4.80	2.60	3.00	4.10	7.10?	7.30	3.90	17.10	10.40	18.50	13.20	*59.20?
Fort Monroe	4.00	1.90	2.60	1.80	0.82	1.30	1.60	0.60	1.00	1.80	1.30	1.20	4.62	3.50	4.10	7.10	19.32?
Fort Moultrie	3.80	2.84	0.25	2.20	3.70	4.20	5.69	3.82	9.24	1.12	1.16	1.74	6.15	13.71	11.52	8.38	39.76
Fort Pierce	3.55	3.40	1.05	7.00	5.70	6.63	4.97	2.63	3.30	5.47	1.41	1.68	13.75	14.23	10.18	8.63	46.79
Key West Barracks	1.77	2.55	0.51	2.99	3.14	4.54	3.45	5.83	9.70	4.73	0.25	8.45	6.64	13.82	14.68	12.77	47.91
Fort Myers	1.15	4.70	0.20	2.75	5.65	6.75	9.70	9.90	1.50	0.35	0.45	1.65	8.60	26.35	2.30	7.50	44.75
Fort Brooke	3.83	6.89	2.44	8.82	6.21	9.44	15.53	11.23	4.68	1.77	1.75	4.85	17.47	36.20	8.20	15.57	77.44
Fort Meade	1.30	2.21	1.85	3.19	10.57	7.24	8.55	10.20	2.99	2.34	0.02	....	15.61	25.99	5.35	......	......
Fort Barrancas	3.45	5.55	7.21	0.50	3.47	3.39	5.43	6.81	3.47	7.14	0.76	3.64	11.18	15.63	11.37	12.64	50.82
Mount Vernon Arsenal	11.01	12.83	6.22	1.96	4.45	6.72	6.13	2.29	6.82	0.81	2.34	0.73	12.63	15.34	9.97	24.57	62.51
Baton Rouge Barracks	2.85	5.50	6.15	3.58	8.05	4.00	6.55	7.41	9.88	4.38	0.45	1.82	17.78	17.96	14.71	10.17	60.62
Fort Towson	1.01	2.00	5.10	2.22	....	....	....	....	....	....	....	....	......	......	......	......	......
Fort Washita	0.01	3.30	5.53	4.21	11.73	9.17	0.59	1.39	1.17	1.19	3.57	1.42	21.47	11.15	5.93	4.73	43.28
Fort Smith	1.37	2.05	7.05	6.55	6.25	2.26	1.02	0.88	3.53	2.85	1.63	2.54	19.85	4.16	8.01	5.96	37.98
Fort Gibson	0.30	1.43	7.83	3.16	7.67	2.80	0.21	0.33	0.68	1.58	2.06	0.77	18.66	3.34	4.32	2.50	28.82
Jefferson Barracks	1.90	3.25	6.90	3.40	6.98	4.19	0.96	1.47	3.41	6.57	3.13	1.11	17.28	6.62	13.11	6.26	43.27
St. Louis Arsenal	0.65	2.40	7.10	4.30	4.65	2.20	1.70	1.48	1.35	3.00	1.45	0.90	16.05	5 38	5.70	3.95	31.08
Newport Barracks	3.20	5.30	8.10	2.10	6.47	2.68	2.05	1.55	2.00	2.22	2.98	1.65	16.67	6.28	7.20	10.15	40.30
Fort Mackinac	2.59	1.23	1.56	1.04	2.65	6.35	5.67	4.26	3.22	2.28	3.66	0.98	5.25	16.28	9.16	4.80	35.49
Fort Brady	2.49	1.18	1.34	2.14	3.61	1.23	3.21	3.86	3.18	3.40	3.07	0.45	7.09	8.30	9.65	4.12	29.16
Fort Snelling	0.72	0.03	1.03	2.51	4 30	3.31	3.92	1.75	6.55	1 23	0.60	0.64	7.84	8.98	8.38	1.39	26.59
Fort Ripley	0.67	0.03	0.79	0.97	4.34	3.68	0.62	1.69	4.40	0.91	0.24	0.15	6.10	5.99	5.55	0.85	18.49
Fort Ridgely	1.20	0.01	1.18	2.83	6.84	2.70	2.49	2.28	2.58	0.41	1.13	1.65	10.85	7.47	4.12	2.86	25.30
Fort Leavenworth	0.04	1.78	1.33	3.35	5.55	4.50	0.18	1.07	2.11	3.20	1.20	0.09	10.23	5.75	6.51	1.91	24.40
Fort Riley	0.00	0.94	1.86	4.55	4.35	1.10	0.00	1.65	1.85	0.02	0.61	0.00	10.76	2.75	2.48	0.94	16.93
Fort Kearny	0.23	1.33	1.87	2.56	4.15	5.40	3.51	1.18	4.60	1.07	0.75	0.00	8.58	10.09	6.42	1.56	26.65
Fort Laramie	0.18	0.40	0.80	3.98	4.46	3.67	3.26	1.27	1.60	1.86	0.73	0.05	9.24	8.20	4.19	0.63	22.26
Fort Arbuckle	0.01	2.30	3.33	2.98	6.60	4.33	0.00	2.14	2.12	0.55	3.46	0.40	12.91	6.47	7.23	2.71	29.32
Fort Belknap	0.11	1.10	1.42	1.75	4.97	8.33	0.00	0.75	1.53	0.59	0.05	0.05	8.14	9.08	2.17	1.26	20.65
Clear Fork of Brazos	0.00	0.30	....	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Fort Chadbourne	0.00	0.90	0.48	0.56	5.76	4.67	1.31	4.30	4.09	†3.30	6.30	2.60	6.80	10.28	13.69	3.50	34.27
Fort McKavett	0.01	0.77	2.10	0.28	3.72	0.15	2.91	0.04	3.86	0.79	1.19	0.95	6 10	3.10	5.84	1.73	16.77
Fort Merrill	0.11	1.99	0.05	1.16	7.66	4.70	5.44	3.13	5.01	0.64	3.20	2.13	8.87	13.29	8.85	4.23	35.24
Fort Ewell	0.22	2.86	0.38	0.00	6.88	6.05	3.58	3.21	4.68	....	....	....	7.26	12.84	......	3.08	......
Corpus Christi	....	....	....	....	8.07	4.71	7.69	3.68	6.82	....	....	....	......	16.08	......	......	......

* This amount and that at Fort Monroe are clearly in error, one too great and the other too small. Both appear carelessly measured on each month's record.

† Approximate.

MONTHLY SUMMARIES OF AMOUNT OF RAIN, 1854.

STATIONS.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Brown	0.45	1.50	1.15	0.05	4.10	7.65	4.25	5.00	11.31	5.79	7.47	1.88	6.30	16.90	24.57	3.83	34.27
Ringgold Barracks	0.70	1.69	0.22	0.00	2.83	10.98	4.06	1.58	3.02	0.92	2.10	0.68	3.05	16.89	6.04	3.07	29.05
Fort McIntosh	0.05	1.90	0.30	0.00	5.02	4.54	3.95	0.20	5.34	0.35	1.83	0.42	5.32	8.69	7.57	2.37	23.95
Fort Inge	0.20	2.15	3.00	0.75	3.88	2.09	0.97	1.67	4.80	0.33	3.71	0.50	7.63	4.73	8.84	2.85	24.08
Fort Duncan	0.05	0.69	1.50	0.00	2.53	6.83	0.83	0.90	4.81	0.40	3.28	0.18	4.03	8.56	8.49	0.92	22.00
Fort Clarke	0.00	0.94	1.48	0.60	2.65	0.11	0.08	0.95	3.49	0.55	3.22	0.35	4.73	1.14	7.26	1.29	14.42
Fort Davis	....	....	....	....	....	....	....	....	....	....	....	0.00	......	......	......	......	......
Fort Bliss	....	....	....	....	....	....	0.10	5.71	3.70	1.54	0.00	0.50	......	......	5.24	......	......
Fort Fillmore	0.00	0.00	0.65	0.10	0.86	0.05	0.87	1.38	0.95	0.39	0.67	0.15	1.61	2.30	2.01	0.15	23.85
Fort Thorne	0.00	0.00	0.14	0.20	1.10	0.08	2.23	6.01	3.50	0.00	0.99	0.35	1.44	8.32	4.49	0.35	14.60
Fort Conrad (Craig)	0.00	0.00	0.05	0.01	0.62	0.01	0.41	1.02	2.13	0.34	1.09	0.08	0.68	1.44	3.56	0.08	5.76
Albuquerque	0.13	0.00	0.43	0.39	1.19	0.28	2.59	1.19	2.67	1.37	1.35	0.92	3.00	4.06	5.39	1.05	13.50
Santa Fe	0.36	0.12	2.01	1.68	1.16	0.32	4.11	3.86	4.06	2.50	3.54	1.08	5.85	8.29	10.10	1.56	25.80
Fort Union	0.07	0.02	0.63	0.46	0.50	0.69	3.98	1.75	2.99	0.88	1.80	0.60	1.59	6.42	5.67	0.69	14.37
Cantonment Burgwin	....	....	....	....	....	....	....	....	0.21	0.13	1.03	0.06	......	......	1.37	......	......
Fort Massachusetts	....	....	....	....	3.93	0.24	2.14	2.61	1.53	0.35	....	2.30	3.93	4.99	1.88	......	......
Fort Defiance	2.00	0.15	0.45	0.93	0.51	1.24	3.94	5.24	3.47	0.62	1.49	1.20	1.49	10.42	5.58	3.35	20.84
Fort Yuma	0.00	0.28	0.80	0.00	0.00	0.00	0.01	2.37	0.17	0.30	0.00	0.57	0.80	2.38	0.47	0.85	4.50
San Diego	1.46	2.56	2.14	0.75	0.21	0.02	0.07	1.35	0.13	0.01	0.02	3.34	3.10	1.44	0.16	7.36	12.06
Fort Jurupa	1.64	2.34	3.09	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Fort Miller	2.26	2.42	0.85	2.08	0.04	0.01	....	....	0.12	0.68	0.00	1.25	2.97	......	0.80	5.93	......
San Francisco	3.04	5.87	3.11	2.24	0.06	0.05	0.01	0.03	0.03	1.56	0.40	0.60	5.41	0.09	1.99	9.51	17.00
Benicia	2.06	4.80	2.05	1.56	0.00	0.01	0.00	0.00	0.00	1.12	0.22	0.55	3.61	0.01	1.34	7.41	12.37
Fort Reading	2.90	2.15	0.80	3.07	2.40	0.00	0.01	0.00	0.00	2.26	0.87	1.45	6.27	0.01	3.13	6.50	15.91
Fort Humboldt	4.83	6.80	5.14	5.58	0.12	0.69	0.00	0.00	0.00	3.69	0.98	1.18	10.84	0.69	4.67	12.81	29.01
Fort Jones	0.54	1.00	0.75	1.99	0.21	0.63	0.20	0.21	0.00	4.18	0.48	1.13	2.95	1.04	4.66	8.47	17.12
Fort Orford	....	....	....	....	....	....	0.00	2.56	0.19	11.10	4.59	6.37	......	......	15.88	......	......
Columbia Barracks	....	2.83	1.22	2.78	0.75	2.41	0.00	1.72	0.00	2.31	3.19	8.34	4.75	4.13	......	11.17	......
Fort Dalles	2.79	0.73	0.36	1.52	0.00	0.15	0.00	0.18	0.84	1.91	1.41	2.50	1.88	0.33	4.16	5.02	11.39
Fort Steilacoom	8.69	7.57	2.89	12.50	0.88	5.68	0.00	3.93	3.46	4.37	7.37	12.87	15.27	9.61	15.20	29.13	69.21

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Independence...	166	199	92	31	45	39	19	29	14	66	50	83
Fort Hamilton.......	207	158	94	32	6	66	0	28	0	82	0	160
Fort Columbus.......	196	169	74	23	16	67	10	28	35	86	38	81
West Point..........	200	165	95	35	18	7	2	25	114	18	17	56
Watervliet Arsenal..	237	128	70	23	34	1	4	20	91	28	36	45
Fort Niagara (*a*).....	107	166	63	20	23	33	18	19	30	87	3	20
Alleghany Arsenal...	186	179	107	31	50	41	17	20	41	61	37	27
Fort McHenry.......	206	159	85	17	57	49	13	17	15	44	78	62
Fort Monroe.........	251	114	81	5	13	54	77	6	14	133	18	24
Fort Moultrie........	230	135	99	0	30	61	36	23	46	63	51	44
Fort Pierce..........	159	206	121	0	22	73	42	79	16	45	27	38
Key West Barracks ..	230	135	103	0	43	95	64	65	28	28	7	15
Fort Myers..........	268	97	89	0	75	52	23	18	20	28	11	17
Fort Brooke.........	261	104	112	0	9	65	66	50	25	46	68	32
Fort Meade (*b*)......	120	196	132	0	66	24	53	15	31	9	49	15
Fort Barrancas......	175	190	90	0	84	36	15	31	25	34	41	77
Mt. Vernon Arsenal..	224	141	104	0	27	63	20	80	27	35	18	69
Baton Rouge B'ks (*c*).	132	233	96	0	34	29	139	41	25	22	54	13
Fort Washita........	214	151	84	3	30	24	37	51	101	39	19	26
Fort Smith..........	207	158	91	5	25	25	73	37	54	35	16	14
Fort Gibson.........	207	158	85	3	54	11	21	48	115	13	4	13
Jefferson Barracks...	217	148	64	8	20	9	34	37	78	19	56	20
St. Louis Arsenal....	228	137	59	6	58	16	37	13	49	40	59	23
Newport Barracks...	222	143	61	10	32	10	47	3	43	20	82	6
Fort Mackinac.......	159	206	78	44	34	23	60	37	40	16	59	73
Fort Brady..........	183	182	75	67	34	14	67	16	64	34	52	8
Fort Snelling........	201	164	72	32	41	22	13	43	72	41	35	45
Fort Ripley	199	166	71	32	36	50	11	72	47	38	37	44
Fort Ridgely	184	181	77	30	37	24	23	56	49	40	35	89
Fort Leavenworth....	236	129	63	11	29	27	31	44	36	82	27	63
Fort Riley..........	287	78	32	6	17	12	17	23	105	82	38	19
Fort Kearny.........	241	124	58	15	63	25	22	22	44	41	57	57
Fort Laramie........	284	81	60	31	28	5	93	3	17	10	123	12
Fort Arbuckle.......	284	81	59	1	65	19	20	31	68	35	34	25
Fort Belknap........	196	169	57	0	42	31	7	151	48	34	6	24
Fort Chadbourne.....	243	122	61	0	24	19	29	47	15	18	6	16
Fort McKavett......	239	126	54	0	28	51	28	97	63	49	14	17
Fort Merrill (*d*)......	220	140	54	0	30	15	12	104	63	27	22	12
Fort Ewell (*a*).......	190	83	48	0	23	11	10	108	16	2	5	13
Fort Brown	210	155	71	0	26	26	44	94	58	61	17	26
Ringgold Barracks...	223	142	53	0	48	17	48	123	80	10	9	16
Fort McIntosh.......	238	127	52	0	27	18	26	175	32	3	4	28
Fort Inge	226	139	54	0	45	55	138	52	3	0	1	5
Fort Duncan	212	153	56	0	12	11	4	223	0	0	1	59
Fort Clarke	221	144	42	1	23	31	74	149	18	6	7	39

OBSERVATIONS FOR 1854.

WINDS.

No. of observations and sum of force.															
N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
182	464	156	404	77	161	118	225	58	119	264	590	201	499	334	773
25	30	263	371	1	1	112	211	0	0	327	409	1	1	639	1031
65	138	270	595	39	72	111	246	141	202	343	719	152	275	326	892
431	1581	28	97	9	24	99	282	456	1173	71	181	67	210	225	704
138	439	4	13	16	39	79	231	364	1095	111	324	143	544	182	630
92	136	132	266	74	148	75	104	121	194	349	989	13	249	82	294
202	355	164	277	69	94	81	151	165	415	246	730	148	500	108	310
228	465	198	463	54	104	69	154	59	185	175	379	313	572	247	574
53	126	218	603	310	623	24	64	57	126	533	1106	72	160	97	329
120	336	243	835	143	445	94	275	184	632	271	960	203	531	178	510
89	324	292	1050	170	563	317	903	66	139	182	410	107	263	153	427
174	645	382	1309	258	684	260	742	111	311	113	276	29	86	59	191
301	574	210	433	94	157	72	143	82	249	112	318	44	114	69	166
36	72	259	648	265	489	203	494	101	168	184	480	273	444	130	308
263	577	98	231	211	556	62	143	126	296	36	87	197	425	62	109
338	630	145	299	61	115	124	266	101	202	136	252	165	281	310	537
109	234	251	493	80	158	322	599	108	222	142	286	71	153	275	631
135	315	115	275	558	1283	166	380	100	220	88	218	218	502	54	124
121	339	98	310	149	353	203	546	406	1182	155	371	76	171	103	227
100	258	99	208	293	516	148	256	215	448	142	340	63	157	56	179
217	542	45	73	83	123	194	405	460	1027	53	87	16	31	54	94
82	174	38	92	138	250	149	312	302	536	77	200	225	458	82	259
232	545	66	136	148	247	53	83	198	321	160	266	236	467	94	211
130	461	42	71	187	396	14	15	173	387	83	171	329	775	26	49
139	329	94	286	240	768	148	420	161	391	65	261	237	682	292	957
136	434	58	152	267	643	66	154	257	640	137	427	209	753	32	125
165	367	90	224	52	125	173	398	290	589	164	398	140	398	181	538
144	415	201	480	44	86	288	739	190	444	133	335	150	451	177	425
147	513	96	290	93	275	226	475	196	500	180	443	142	531	356	1063
116	201	108	214	125	208	178	358	143	336	327	733	110	215	254	536
69	223	49	153	67	119	92	183	421	743	328	587	154	336	76	260
252	680	102	243	90	184	90	217	177	497	165	455	230	537	227	522
114	155	19	26	374	529	14	26	69	98	43	65	494	1054	47	75
259	390	77	100	79	122	126	308	274	534	140	236	137	161	100	131
168	450	124	356	27	62	606	1627	191	613	135	312	23	71	98	253
95	253	78	200	117	274	189	302	59	91	73	146	26	67	65	165
112	397	203	531	114	294	389	996	252	763	196	500	56	141	69	192
121	289	59	101	49	65	417	519	252	341	107	143	89	122	49	97
93	221	43	79	41	101	432	1004	65	158	9	12	19	40	54	113
104	172	103	179	178	309	376	745	231	418	243	539	68	125	103	189
194	405	68	125	194	313	494	954	320	690	42	84	36	57	65	131
110	216	71	285	104	153	699	1537	129	205	12	17	18	23	114	225
182	396	219	408	554	1144	207	305	13	36	0	0	3	11	22	50
46	132	45	114	17	48	893	2066	0	0	3	4	3	4	239	554
94	280	123	287	296	749	595	1384	71	187	26	69	30	91	158	441

SUMMARY OF WEATHER

STATIONS.	WEATHER.				WINDS.							
	DAYS.				DAYS.							
	Fair.	Cloudy.	Rain.	Snow.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Fort Bliss (*e*)	182	2	13	1	1	23	6	48	12	44	14	24
Fort Fillmore	357	8	41	0	10	14	17	28	23	78	50	16
Fort Thorne	355	8	37	1	39	34	30	24	38	45	79	57
Fort Conrad (Craig)	319	46	51	2	66	31	25	29	62	27	68	42
Albuquerque	307	58	55	5	88	37	17	29	94	19	23	21
Santa Fe	303	62	67	16	20	56	32	47	21	49	36	50
Fort Union	274	91	52	13	86	22	12	19	38	35	40	62
Ft. Massachusetts (*f*)	175	56	32	11	71	6	5	8	23	33	47	8
Fort Defiance	312	53	66	25	51	17	2	14	93	49	47	45
Fort Yuma	291	74	15	0	71	35	21	50	53	27	47	52
San Diego (*g*)	237	128	50	0	23	38	42	27	30	113	65	12
Fort Miller	246	88	45	0	3	17	64	41	50	44	44	15
San Francisco	181	184	72	0	21	29	4	15	21	109	130	33
Benicia Barracks	252	113	44	0	5	17	36	14	10	31	223	0
Fort Reading	266	99	55	2	83	17	3	14	54	24	12	28
Fort Humboldt	243	122	68	2	29	1	10	18	2	9	1	42
Fort Jones (*h*)	215	126	54	7	58	17	8	16	64	25	23	25
Fort Orford (*e*)	105	79	39	0	1	0	0	67	3	0	1	108
Fort Vancouver	158	176	75	2	2	7	2	38	15	43	15	19
Fort Dalles (*i*)	239	126	62	13	11	26	6	11	15	247	33	7
Fort Steilacoom	180	185	123	11	25	2	23	14	99	57	54	18

(*a*) First nine months.
(*b*) December and part of November not observed.
(*c*) Scale of clearness erroneous.
(*d*) Five days of May omitted.
(*e*) Last six months.
(*f*) Last eight months.
(*g*) August not observed.
(*h*) Last 15 days of January not observed.
(*i*) January not observed.

OBSERVATIONS FOR 1854.

WINDS.

No. of observations and sum of force.

N.		N. E.		E.		S. E.		S.		S. W.		W.		N. W.	
3	5	92	149	25	29	194	253	47	69	177	261	57	90	96	177
41	90	58	140	69	176	113	299	92	184	314	736	200	537	65	186
157	255	137	250	122	169	97	171	153	232	180	351	318	543	227	361
264	630	123	177	99	122	115	177	250	626	107	280	273	531	170	287
353	836	148	311	69	152	118	297	375	963	75	197	93	261	85	200
82	182	224	485	128	206	187	362	85	171	196	389	144	264	202	428
344	527	89	156	49	67	76	138	152	268	139	373	160	402	250	642
283	416	25	51	22	44	32	56	92	159	134	254	188	268	34	59
206	348	68	116	8	10	56	114	371	613	196	415	188	344	180	320
285	582	142	197	83	111	202	401	213	454	110	232	189	500	210	544
92	145	152	218	167	218	110	161	122	207	453	754	260	463	50	82
12	24	69	106	255	396	163	282	202	254	175	471	266	407	60	104
85	256	115	325	18	45	60	183	85	223	436	1351	522	1641	134	465
20	49	68	150	143	237	56	106	39	95	126	382	891	2608	2	5
332	594	70	98	14	19	55	104	218	396	97	149	49	60	111	171
117	371	4	4	40	87	71	116	9	18	37	70	4	6	168	399
234	363	69	119	31	49	63	141	255	392	100	187	91	151	99	189
4	13	1	4	0	0	268	837	12	21	0	0	6	16	433	1177
8	12	29	75	8	16	151	319	59	99	172	273	62	101	75	157
43	69	105	148	23	39	44	61	59	81	987	1847	133	381	29	62
102	311	9	23	93	208	58	149	399	1128	227	708	217	671	73	207

GEOGRAPHICAL POSITIONS OF THE MILITARY POSTS,

WITH THEIR LOCAL TOPOGRAPHY AND ALTITUDES ABOVE THE SEA, AND THE AUTHORITIES FROM WHICH THEY HAVE BEEN OBTAINED.

In the summaries for each year the geographical positions and altitudes have been given from the best authorities at hand, or accessible at the time; yet, the discrepancy of authorities in many cases is so great that changes have sometimes been made when better determinations were subsequently obtained. The research required in the comparison of existing authorities is very considerable, and in the western portion of the territory the positions are all of recent determination. The recent surveys have greatly modified the geography of many portions west of the Mississippi, and they have come in very fortunately to establish the positions of the military posts with great accuracy. In the summary for 1854 all these corrections are introduced, and the positions there given may be relied upon as sufficiently accurate for any purpose in this connexion. In the succeeding consolidated tables, where the results for each post are given for successive years, the corrected latitude, longitude, and altitude, will be found for each post at which observations have at any time been made.

Fractions less than one minute of a degree are neglected, even when determined astronomically, as unnecessarily precise for the present purpose. Many of the interior and western posts were determined quite accurately by astronomical observation.

The posts of the Atlantic, Pacific, and Gulf coasts, were, in nearly every case, made points or bases of triangulation in the surveys of the coast, and their positions have thus been very accurately determined.

On the Northeast boundary, and on the Mexican boundary, the positions have been determined with great accuracy in the boundary surveys.

The research and comparison has been made as thorough at the last as appeared necessary for any purpose affecting the records or their results, and, indeed, as full and complete as existing materials would permit.

Fort Kent, Maine.—South bank of St. John's river, at the mouth of Fish river. Country rolling and open. Position and altitude by Major J. D. Graham, United States Topographical Engineers. 1844.

Fort Fairfield, Maine.—South bank of Aroostook river, six miles from its entrance into the St. John's. On a local eminence 100 feet above the river, with a hilly or undulating forest back ground. Exposure generally open. Position and altitude from Major J. D. Graham. 1844.

Hancock Barracks, Maine.—Houlton, eastern boundary of the State, near the St. John's river. Locality similar to that of Fort Fairfield. Position and altitude by Major Graham. 1844.

Fort Sullivan, Maine.—Moose island, Eastport, the most eastern point of the State. Open marine exposure. Position derived from the Northeastern Boundary Survey.

Fort Preble, Maine.—Cape Elizabeth, south side of Portland harbor. Exposure open, and mainly seaward. Position from United States Coast Survey.

Fort Constitution, New Hampshire.—On a point at the mouth of Piscataqua river, Portsmouth harbor, and three miles eastward from Portsmouth. Open marine exposure. Position from United States Coast Survey.

Fort Independence, Massachusetts.—On Castle island, Boston harbor, three miles southeast of State-house, Boston. Full marine exposure. Position from United States Coast Survey.

Watertown Arsenal, Massachusetts.—At Watertown, on the Charles river, six miles west of State-house, Boston. An inland and protected locality. Position from United States Coast Survey. Altitude approximate.

Fort Wolcott, Rhode Island.—On Goat island, Newport harbor, half a mile from the town of Newport. The exposure is open, principally over water surface, and toward the sea. Position from United States Coast Survey.

Fort Adams, Rhode Island.—Brenton's Point, in Newport harbor, entrance to Narragansett bay, one mile westward from Newport. Open and free exposure, mainly marine. Some rocky elevations in the vicinity. Position from United States Coast Survey.

Fort Trumbull, Connecticut.—On the right bank of Thames river, one mile south of New London, and two and a half miles from the shore of Long Island Sound. Exposure free and open, yet less direct to the sea than other ports of the Atlantic coast. Position from United States Coast Survey.

Fort Hamilton, New York.—At the Narrows of New York harbor, on a point at the southwest corner of Long Island, and six miles south of New York city. Exposure particularly open seaward. Position from United States Coast Survey.

Fort Wood, New York.—On Bedlow's island, New York harbor, two and a half miles south of New York city.

Fort Columbus, New York.—On Governor's island, New York harbor, very near the city of New York. It is much less exposed to direct sea influences than Fort Hamilton, though surrounded by the waters of the river and bay. Position from the United States Coast Survey.

West Point, New York.—On the west bank of Hudson river, fifty miles from the sea. The locality is surrounded by hills, varying from 600 to 1400 feet in height on the west, except on the line of the river. Its confined position has a marked effect. Position and altitude from Assistant Surgeon Hitchcock.

Watervliet Arsenal, New York.—At Watervliet, above Albany, on the west bank of the Hudson river, and nearly opposite to Troy. The locality is surrounded by hills and an elevated back country, and is much confined. It has local peculiarities somewhat like those of West Point. Position derived from those of Troy and Albany, as given in the American Almanac.

Plattsburg Barracks, New York.—At Plattsburg, on the western shore of Lake Champlain. The back country is rough and elevated. Position from Professor Thompson's map of Vermont. Altitude of lake by Professor Thompson, 90 feet; the post is 90 feet above low water of the lake.

Madison Barracks, New York.—At Sackett's Harbor, on Lake Ontario, on the southern side of the bay formed by the entrance of Black river into the lake. Distant from the lake eight miles. The exposure is generally open and over a level district. Position from the most recent maps of New York.* Altitude of Lake Ontario taken as 250 feet.

Fort Ontario, New York.—At Oswego, southern shore of Lake Ontario, on the east bank of Oswego river. Exposure generally open, and particularly so toward the lake. Its local elevation 50 to 60 feet above Lake Ontario. Position from the most recent maps of New York.

Fort Niagara, New York.—On a point of land at the mouth of Niagara river, and nearly surrounded by the waters of the river and of Lake Ontario. Exposure particularly level and open. Position from the Army Meteorological Register, compared and verified.

Buffalo Barracks, New York.—At Buffalo, in the northern and most elevated portion of the city. Exposure generally free, yet not directly open to Lake Erie. Position from Army Meteorological Register for 1831 to 1842.

Alleghany Arsenal, Pennsylvania.—At Pittsburg, three miles northeast of the city, and on the immediate bank of the Alleghany river. The position is confined and local in a great degree, with elevated districts at a distance from the river, and high bluffs bordering it. Position from the Army Meteorological Register, compared; the latitude as given in the American Almanac.†

Carlisle Barracks, Pennsylvania.—At Carlisle, in a valley opening to the Susquehanna river at Harrisburg. At the northwest there is a considerable mountain ridge, but the locality is generally open. Position from the most recent maps. Altitude from railroad surveys.

Fort Mifflin, Pennsylvania.—On an island in the Delaware river, five miles below Philadelphia. Open exposure, with much water surface. Position from United States Coast Survey.

Fort Delaware, Delaware.—On an island in Delaware river, four miles from Newcastle, Delaware. Exposure open, with much fresh water surface. Position from United States Coast Survey.

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* The longitude of Sackett's Harbor is given at 75° 57' W. in the American Almanac.

† The longitude of Pittsburg is variously given, as 80° 02', 80° 08', and 80° 14'; the last by Dr. Drake. It can hardly be greater than the position given in the Army Meteorological Register, to which it is restored.

FORT McHENRY, MARYLAND.—On an arm of Patapsco river, three miles southeast of Baltimore. Exposure entirely open and free, with much water surface. Position from the United States Coast Survey.

FORT SEVERN, MARYLAND.—Near Annapolis, on Severn river, at its entrance into Chesapeake bay. A very level and open water exposure. Position from United States Coast Survey.

FORT WASHINGTON, MARYLAND.—On the east bank of the Potomac river, fourteen miles below Washington city. At the east of the fort there are low hills, and the locality is somewhat confined and glen-like. Position from the United States Coast Survey.

FORT MONROE, VIRGINIA.—At the terminus of the western shore of Chesapeake bay, on a sandy beach known as Old Point Comfort. An open exposure of water surface, within reach of the sea influence through the wide entrance of Chesapeake bay. Position from the United States Coast Survey.

BELLONA ARSENAL, VIRGINIA.—On the right bank of James river, 12 miles from Richmond. An open exposure, elevated 100 feet above the river. Position derived from that of the capitol, Richmond.[*]

FORT MACON, NORTH CAROLINA.—On the point of Bogue island, near Beaufort. Direct ocean exposure. Position from United States Coast Survey.

FORT JOHNSTON, NORTH CAROLINA.—At Smithville, mouth of Cape Fear river. Exposure over water surface mainly, and open to the sea. Position from United States Coast Survey.

FORT MOULTRIE, SOUTH CAROLINA.—On Sullivan's Island, entrance to Charleston harbor, eight miles from Charleston. Direct ocean exposure. Position from United States Coast Survey.

AUGUSTA ARSENAL, GEORGIA.—On an elevated position, three miles from Augusta, two miles from the Savannah river at the nearest point, and 200 feet above the river at Augusta. Among sand hills, with a free exposure. Position from the Army Meteorological Register.

OGLETHORPE BARRACKS, GEORGIA.—On low ground, one mile south of Savannah and twelve miles from the ocean. Level exposure over salt and fresh water surfaces. Position from Army Meteorological Register.[†]

FORT MARION, FLORIDA.—At St. Augustine, on the shore of St. Augustine bay. Level exposure over fresh and salt water surfaces. Position from Army Map of Florida, 1839.

FORT SHANNON, FLORIDA.—At Pilatka, on the west bank of the St. John's river, near twenty miles southwest of St. Augustine district. Generally level. Position from Army Map; approximate.

NEW SMYRNA, FLORIDA.—East coast of peninsula, on the right bank of Halifax river, eight miles from Mosquito bar, and two miles in a direct line from the Atlantic. The whole exposure entirely level and open. Position from United States Coast Survey.

FORT PIERCE, FLORIDA.—At Indian river inlet, east coast of peninsula, on the shore of St. Lucie sound, and separated by it from the immediate shore of the Atlantic. A level district and open exposure. Position derived from recent Coast Survey charts of the coast southward; approximate.

FORT DALLAS, FLORIDA.—Near Cape Florida, east coast of peninsula, on the Miami river at the inner shore of Biscayne bay. Separated by this narrow bay and a point of land from the ocean. Position from Topographical Bureau's map of Florida, 1846.[‡]

KEY WEST BARRACKS, FLORIDA.—At Key West, Florida Keys, sixty miles southwest of Cape Sable. Direct sea exposure, with but a small area of land surface. Position from United States Coast Survey.

FORT MYERS, FLORIDA.—Near Charlotte harbor, west coast of peninsula, on the bank of Caloosahatchee river, near its mouth, and several miles from the immediate coast of the Gulf. Position from United States Coast Survey.

FORT HAMER, FLORIDA.—North of Charlotte Harbor, west coast of peninsula, on a stream tributary to this bay, and some distance from the coast. Position from Assistant Surgeon Sloan.

FORT BROOKE, FLORIDA.—At the head of Tampa bay, west coast of peninsula, about thirty miles from the Gulf of Mexico. The surrounding country is low and level as at all stations of the peninsula. Position from United States Coast Survey.

FORT MEADE, FLORIDA.—In the interior of the peninsula, forty-six miles, east-southeast from Tampa bay, and near the Kissimmee river. Its location is on a comparatively elevated sand ridge, higher than any adjacent land. Position from Topographical Bureau's Map of Florida, 1846; altitude approximate.

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[*] Richmond, (Capitol,) Virginia, lat. 37° 32' 17"; long. 77° 27' 28".—*American Almanac.*

[†] Position of Savannah Exchange, lat. 32° 4' 53''; long. 81° 5' 14". From United States Coast Survey.

[‡] A sketch map of the Coast Survey, published in 1853, gives Cape Florida at lat. 25° 40', and long. 80° 05', nearly. Fort Dallas is about ten miles distant, northwest.

FORT KING, FLORIDA.—In the interior of the peninsula, east of Cedar keys, about forty miles from the coast of the Gulf of Mexico and sixty miles from the Atlantic coast. The surrounding country is slightly undulating, alternately sandy pine barrens and marshy hammocks. Position by Assistant Surgeon Forry, compared with recent maps.

CEDAR KEYS, FLORIDA.—On the western coast of the peninsula. The keys or islands are several miles from he mainland. Position from United States Coast Survey.

FORT BARRANCAS, FLORIDA.—Entrance to Pensacola harbor, near Pensacola. The locality of the barracks is about one and a half miles west of the navy yard, on the west side of the entrance to the bay, and about eight miles southwest of Pensacola. Exposed to the Gulf. Position from United States Coast Survey.

FORT MORGAN, ALABAMA.—At Mobile Point, entrance to Mobile bay, near seventy miles south of Mobile. Position from United States Coast Survey.

MOUNT VERNON ARSENAL, ALABAMA.—Near Mobile river, about thirty-two miles north of Mobile. The post has a local elevation of near 200 feet above a small branch of the river, Coon creek. Position from Mitchell's map of Alabama, corrected by Coast Survey position of Mobile.

EAST PASCAGOULA,* MISSISSIPPI.—At the mouth of Pascagoula river, or on islands near it. An open Gulf exposure, surrounded by low beaches and water surface. Position from Coast Survey.

PASS CHRISTIAN, MISSISSIPPI.—At St. Louis bay, entrance to Lake Borgne. (A summer station.) Open exposure to the Gulf. Position from Coast Survey charts.

FORT PIKE, LOUISIANA.—On the north side of Petite Coquille island, entrance to Lake Pontchartrain, thirty-five miles northeast of New Orleans. The influence of the winds and atmosphere of the Gulf is quite decided, the whole exposure being over water surface or very low shores. Position from Coast Survey charts.

FORT WOOD, LOUISIANA.—South of Petite Coquille island, seven miles southwest of Fort Pike, and between Lake Borgne and Lake Pontchartrain. Exposure less open than that of Fort Pike, and with a predominance of fresh water surface and marshes in its vicinity. Position from Coast Survey charts.

NEW ORLEANS BARRACKS, LOUISIANA.—On the north bank of the Mississippi, three miles below the centre of the city. The locality is protected by forests to some extent from the winds of the Gulf. Position that of New Orleans; from Nicollet. Altitude of the river at the Barracks eleven feet above the Gulf; the hospital is placed at ten feet above Lake Pontchartrain, which is at mean sea level, nearly.

BATON ROUGE BARRACKS, LOUISIANA.—At Baton Rouge, on the east bank of the Mississippi, one hundred and forty miles from New Orleans. The locality is on the first bluff met with on ascending the river. Exposure open. Position from Army Meteorological Register, 1831 to 1842, verified by comparison with the most recent maps.

FORT JESUP, LOUISIANA—Southwest of Nachitoches, Louisiana, on a ridge midway between the Red and Sabine rivers, 25 miles distant from each. The country is rolling, but not hilly. Winds from the Gulf are felt through the summer. Position from Graham's and Mitchell's maps.

FORT TOWSON, INDIAN TERRITORY.—Near Red river, six miles distant from it and from the Kiamichi, a branch entering it from the north. In part surrounded by hilly and rolling country, and on the south by open marshes or prairies. Position measured from the corrected maps of the Pacific Railroad surveys. Altitude for the post, above Red river and Gates' creek, from Assistant Surgeon Madison. Whole altitude approximate.

FORT WASHITA, INDIAN TERRITORY.—Near the Washita river,† thirty miles from its entrance into Red river. The location is a mile and a half east of the Washita, one hundred and fifty feet above it, and on the border of high open prairies. Position from the map of Captain Whipple, 1854, compared; approximate. Altitude of surface of water in Red river at Preston, by Captain Pope, Topographical Engineers, 641 feet. Altitude for post taken as reported by Assistant Surgeon Baily.‡

FORT SMITH, ARKANSAS.—At the mouth of Poteau river, on the south bank of the Arkansas, and at the western limit of Missouri. Southward the country is broken and hilly, but the locality is not confined. Position and altitude by Captain Whipple, Topographical Engineers, 1854, from astronomical and barometric observations.

FORT GIBSON, INDIAN TERRITORY.—On the east bank of the Neosho or Grand river, three miles from its junction with the Arkansas. The locality is low, surrounded by bottom land on one side, and more elevated prairie on others, with hills in the distance. Position from Army Meteorological Register, 1826 to 1830. Altitude determined by Assistant Surgeon Coolidge, in 1847, as the result of the mean of ten months barometric readings, compared with the mean reading for the same period at Fort Columbus, New York.§

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* This is a summer station for the forces stationed at New Orleans. It has had various positions at East Pascagoula and on the islands near, called Camp Lawson, Camp Twiggs, &c.

† The Western, or False Washita.

‡ The altitudes on Red river given by Captain Pope appear too great, and as they are determined by a line of levels from El Paso, the lower altitude of Dr. Baily is taken, who does not give his mode of obtaining it.

§ Assistant Surgeon Coolidge reports, in January, 1844, that "the latitude and longitude of this post have recently been approximately determined by Captain Cady, 6th infantry, at 35° 48' 10", and 95° 3' 15", by calculations based on McCoy's survey of the Cherokee boundaries in 1837. The source of the determination used is not known."

ort Scott, Kansas.—Near the Marmiton river, four miles from the western boundary of Missouri, on the military road from Fort Leavenworth to Fort Gibson. The locality is a high table prairie, which, at the south of the Marmiton, divides the tributaries of the Missouri from those of the Arkansas. Exposure particularly open and unconfined. Position from Mitchell's map of Missouri. Altitude estimated.

Jefferson Barracks, Missouri.—On the west bank of the Mississippi, ten miles below St. Louis. The locality is on a bluff 100 feet above the river, with a somewhat hilly back ground. Exposure not open westward, but affected by the river depression. Position derived from that of St. Louis. Altitude from Nicollet, for the surface of the Mississippi.

St. Louis Arsenal, Missouri.—On the west bank of the Mississippi, three miles below the city of St. Louis. The locality is on the immediate bank of the river, much confined in regard to exposure, and affected by local extremes. Position that of Nicollet for St. Louis Cathedral. Altitude from Dr. Engelmann's barometric comparisons with New Orleans.

Newport Barracks, Kentucky.—At Newport, on the south bank of the Ohio river, opposite Cincinnati. The exposure is generally open. Position derived from that of Professor Mitchell's observatory, on Mount Adams, an eminence overlooking Cincinnati from the northeast. Altitude approximate, above the river.

Detroit Barracks, Michigan.—At Detroit, within the city limits. The locality has been changed at times, always retaining an open inland exposure. Position from Army Meteorological Register, 1831 to 1842.*

Dearbornville Arsenal, Michigan.—Near Detroit, on the river Rouge, about ten miles west of the city. Country low and flat. Position derived from that of Detroit.

Fort Gratiot, Michigan.—At the southern extremity of Lake Huron, west bank of St. Clair river. Exposure generally open, and over an undulating forest country, without hills. Position from Mitchell's map ; approximate.

Fort Mackinac, Michigan.—Island of Mackinac, in the straits connecting Lakes Huron and Michigan. The fort is on an abrupt elevation, 150 feet above the lake, with a hundred feet or more of greater elevation in a hill north of it. Exposure particularly open, except to the north. Position from Captain Macomb's Survey of the Lakes.

Fort Brady, Michigan.—At the outlet of Lake Superior, Sault St. Marie, on the south side of that river. It is fifteen miles from the open lake, on a shore but little elevated above the river, and with an open exposure. Latitude and altitude from Army Meteorological Register, 1831 to 1842. Longitude by Major Long, Topographical Engineers, 1823.

Fort Wilkins, Michigan.—At Copper Harbor, Keewenaw point, south shore of Lake Superior. The precise location and exposure are not known. Position from the maps of the geological surveys.

Fort Howard, Wisconsin.—At Green bay, on the west side of Fox river, at its mouth. Locality but slightly elevated, with a low, marshy inland exposure. Position from Mitchell's map of Wisconsin.

Fort Atkinson, Wisconsin.—On Rock river, about forty miles west of Milwaukie. Position from recent maps of Wisconsin.

Fort Dearborn, Illinois.—At Chicago, on the immediate bank of Chicago river, and very near the shore of Lake Michigan. Entirely level and open prairie and lake exposure. Position that of Chicago in American Almanac, 1855.

Fort Winnebago, Wisconsin.—On the east bank of Fox river, (tributary to Green bay,) central Wisconsin. District low, level, marshy, and open. Position from Army Meteorological Register, 1826 to 1830, compared with Nicollet's and other recent maps. Altitude derived from those of Fort Crawford and Fort Howard ; approximate.

Fort Crawford, Wisconsin.—At Prairie du Chien, on the east bank of the Mississippi, two miles above the mouth of the Wisconsin river. Exposure of the locality open, with bluffs at two or three miles distance. Position from Army Meteorological Register, 1826 to 1830, compared with Nicollet's and Owens' maps.† Altitude that of Prairie du Chien, from Nicollet.

Fort Armsrtong, Illinois.—On Rock island, in the Mississippi river, four miles above the mouth of Rock river. Position from Nicollet's map.

Fort Atkinson, Iowa.—On Turkey river, northwest of Dubuque, and near fifty miles westward from the Mississippi at the nearest point. Locality not known. Position from Nicollet's map. Altitude estimated.

Fort Ripley, (Gaines,) Minnesota.—On the west bank of the Mississippi, six miles south of the mouth of Crow-wing river. Exposure generally level and open, with gradual elevations in the back ground. Position and altitude from those of mouth of Crow-wing river, by Nicollet.

Fort Snelling, Minnesota.—At the junction of the St. Peter's with the Mississippi river, on the enclosed angle. The position is locally elevated, but it has a background of bluffs protecting it on the northwest. Position and altitude from Nicollet.

Fort Ridgely, Minnesota.—At the head of navigation of the St. Peter's river, near seventy miles southwest of Fort Snelling. Position from Nicollet's map. Altitude estimated from Nicollet's altitudes of points on the St. Peter's river.

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* St. Paul's Church, Detroit, is given in the American Almanac for 1855 at 83° 2' 30" W. long.

† Position for Fur Company's house, by Nicollet, lat. 43° 3' 6" N.; 91° 9' 19" W. lon.

FORT DODGE, (CLARKE,) IOWA.—On the upper portion of the Des Moines river, at the junction of Lizard fork. Exposure generally open, surrounded by extensive prairies. Position from Owen's Geological Report. Altitude by Owen for course of Des Moines river; by Nicollet at its mouth.

FORT DES MOINES, IOWA.—On the Des Moines river, central Iowa. Exposure generally open. Position from Owen's Geological Report. Altitude from Owen for Des Moines river; from Nicollet for its mouth.

FORT CROGHAN, IOWA.—On the east bank of the Mississippi, near twenty miles below Council Bluffs. High bluffs are at some distance from the river, three to six miles, but the exposure is generally open. Position from Nicollett's map. Altitude from Lieutenant Donelson, 1854.

COUNCIL BLUFFS,* NEBRASKA.—On the west side of the Missouri river, thirty miles above the mouth of the Platte. The bluffs are much exposed toward all points, while the immediate valley of the river is confined and local. Position from Nicollet's map. Altitude from Nicollet and Lieutenant Donelson, 1854; (1032 feet for the river, and 1327 feet for the bluffs.)

FORT LEAVENWORTH, KANSAS.—On the west bank of the Missouri, twenty miles above the mouth of Kansas river. The locality is elevated and the exposure particularly open. Position by Fremont; altitude that of Nicollet for the landing, 746 feet, 150 feet being given by the officers as the height of the post above the river.

FORT RILEY, KANSAS.—On the angle formed by the junction of Republican fork (or Pawnee river) and Kansas river. Surrounded by open plains. Latitude by Captain Gunnison; longitude from Fremont.† Altitude derived from positions on Captain Gunnison's line of railroad survey; approximate.

FORT KEARNY,‡ NEBRASKA.—On the south bank of Platte river, midway between the Mississippi and the Rocky mountains. The valley of the Platte is broad, and the bluffs are remote and of moderate elevation. Position from Captain Stansbury, Topographical Engineers, 1850. Altitude by Fremont.

FORT LARAMIE, NEBRASKA.—At the junction of the Laramie river with the north fork of the Platte. Locality elevated, and exposure open, over naked plains and bluffs. Position by Fremont, 1843. Altitude from Captain Stansbury's map.

FORT ATKINSON, KANSAS.—Near the crossing of the Arkansas river, Santa Fē route, twenty-six miles below the point so designated. The bluffs are low, and the country on all sides unbroken prairie, without timber even on the river bottom. Position and altitude from Captain Gunnison's railroad survey, 1854.

FORT ARBUCKLE, INDIAN TERRITORY.—Near the Washita river, "four miles southward at the nearest point, and seventy-six miles north of west of the junction of this with Red river."§ The country generally open, though woody at the post. Hills at the southward. Position measured from the general Pacific railroad map, 1855.‖ Altitude derived from comparison with points on Captain Whipple's line of survey; approximate.

FORT WORTH, TEXAS.—On the west fork of the Trinity river, Upper Texas. The locality is a high, open prairie, fully exposed, and intermediate between the two belts of woodland called the Cross Timbers. Elevation above the stream, 150 feet. Position from Colonel Johnston's map, Topographical Engineers, 1849. Altitude estimated by comparison with that of Red river and other points.

FORT GRAHAM, TEXAS.—On the east bank of the Brazos, Josē Maria village. The valley of the Brazos, though wide, is bounded by bluff banks, which give a somewhat local character to the exposure. Position from Colonel Johnston's map, 1849. Altitude estimated.

FORT BELKNAP, TEXAS.—"On the north bank of the Red fork of the Brazos, 110 miles northwest of Fort Graham. The locality is on the edge of a rolling prairie extending back many miles."¶ South of the river there are hills. Position from Captain Pope's map, 1855. Altitude estimated from altitudes taken near it on the line of Pope's survey.

POST PHANTOM HILL, TEXAS.—Clear fork of Brazos river. This post is about seventy-five miles southwest of Fort Belknap, in a similarly high and open country. Position derived from points of the surveys of Johnston, Pope, and others. Altitude similarly obtained.

FORT CHADBOURNE, TEXAS.—On Oak creek, a tributary of the Colorado river from the north. The surrounding country is hilly and mountainous, but the particular features of the locality are not known. Position and altitude from a sketch by Assistant Surgeon Swift, based on survey by Colonel Johnston, of Topographical Engineers.

CAMP J. E. JOHNSTON, TEXAS.—On the Concho river, a branch of the Colorado from the south, near forty miles southwest of Fort Chadbourne. The locality is in a valley, five miles wide, surrounded by hills and mountains in the distance. Position and altitude from a sketch by Assistant Surgeon Swift, based on surveys by Colonel Johnston.

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* The town of Council Bluffs is on the east side of the river, below the site of the old fort.

† Fremont gives the longitude of an encampment half a mile west of the junction of these rivers at 96° 24′ 56″; 1843.

‡ "Old Fort Kearney" was on the Missouri, below the mouth of the Platte.

§ Assistant Surgeon Glisan, 1852.

‖ The position given previous to 1854 was from the best Topographical Bureau's maps, but the great discrepancies previously existing in the positions of this part of our territory are mainly removed by the recent Pacific railroad surveys. The final position is taken from these.

¶ Assistant Surgeon Baily, 1852.

FORT GATES, TEXAS.—On the Rio Leon, a tributary of the Brazos river, fifty-five miles southwest of Fort Graham. The locality is in a valley with much wooded country in the vicinity. Position from Colonel Johnston's map. Altitude estimated.

FORT CROGHAN, TEXAS.—On a small tributary of the Colorado, near ten miles from that river, and in a somewhat sheltered valley. Position from Johnston's map. Altitude approximate.

FORT MARTIN SCOTT, TEXAS.—At Fredericksburg, on the Rio Pedernales, a branch of the Colorado river. It is two miles from Fredericksburg and seventy-five from San Antonio. The locality is in a valley, with hills and mountains at the west. Position from Johnston's map. Altitude approximate.

FORT MCKAVETT, TEXAS.—On the San Saba river, a branch of the Colorado. The locality is on the south bank, at an elevation of 100 feet above the river, and with a generally open exposure. Position by Assistant Surgeon Crawford, from Johnston's surveys, corrected by comparison with recent surveys. Altitude by Assistant Surgeon Crawford.

FORT MASON, TEXAS.—On the Llano river, a tributary of the Colorado. A hilly district, though not locally confined in its exposure. Position from combined railroad map, 1855.

FORT TERRETT, TEXAS.—At the source of the Rio Llano, a tributary of the Colorado. The locality is on a small plain, with a very hilly and broken country in the direction of the source of the river. Position from the recent combination of survey maps. Altitude (from Assistant Surgeon Anderson) by Colonel Johnston, Topographical Engineers.

AUSTIN, TEXAS.—At the city of Austin, on the Colorado. The locality at which the observations were taken not known. This point is at the head of navigation of the Colorado, and differs much in altitude and climate from the chain of posts at the westward. Position from Johnston's map.

SAN ANTONIO, TEXAS.—At the town of San Antonio, on San Antonio river. The precise position of the buildings for military occupation is not known. The station compares very well with Austin, and is but little more elevated. Position from Johnston's and other maps. Altitude by Major Graham, Topographical Engineers.

FORT EWELL, TEXAS.—On the Neuces river, at its southern bend. The country a low and generally arid plain. Position from Johnston's and the railroad maps.

FORT MERRILL, TEXAS.—On the Neuces river, midway between Fort Ewell and Corpus Christi. The country a low arid plain. Position from the recent survey maps.

CORPUS CHRISTI, TEXAS.—At the head of Corpus Christi bay. The exposure to the Gulf of Mexico is somewhat broken by the distance and the islands separating the coast bays from the Gulf. Position by Captain Cram, Topographical Engineers.

FORT BROWN, TEXAS.—At Brownsville, opposite Matamoras, and on the north side of the Rio Grande, about twenty miles from the coast of the Gulf. Position from the Boundary Survey.

RINGGOLD BARRACKS, TEXAS.—Near the town of Rio Grande, and nearly opposite Camargo, Mexico, on the Rio Grande, sixty miles above Fort Brown. The locality is on the low banks of the river, with a level back ground. Position from the Mexican Boundary Survey, through the medical officer.

FORT MCINTOSH, TEXAS.—At Laredo, valley of the Rio Grande, on a sandy plain, fifty feet above the river, two miles in width, and with a moderately hilly back ground. Exposure free. Position from Boundary Survey. Altitude approximate.

FORT DUNCAN, TEXAS.—At Eagle Pass of the Rio Grande, on a dry elevated plateau, much above the river bed. The locality is overlooked by a range of sand hills of moderate elevation. Position from Boundary Survey. Altitude estimated; approximate.

FORT INGE, TEXAS.—On the Leona river, forty-five miles northeast of Fort Duncan. The district is moderately hilly and generally wooded. Position from Captain Thom, Topographical Engineers, from data of Boundary Survey. Altitude by Colonel Graham.

FORT LINCOLN, TEXAS.—On the Rio Seco, a branch of Neuces river, fifty-five miles west of San Antonio. The district is quite open and arid, and the locality elevated, with free exposure south and east, and some protecting hills at the northwest. Position from Johnston's surveys. Altitude approximate.

FORT CLARK, TEXAS.—On the Las Moras, a small tributary of the Rio Grande, and about thirty miles north of Fort Duncan. At the west bank of the river, on a local elevation of fifty feet above it. Exposure free, and the vicinity wooded. Position from general railroad map, 1855. Altitude estimated; approximate.

FORT DAVIS, TEXAS.—In the mountains between the Pecos river and El Paso, near Wild Rose Pass, at the sources of the Limpia river. The location of the post is in a deep cañon of the mountains, selected for the purpose of protection against the severity of the winters. Position and altitude from Assistant Surgeon Guild, by Lieutenant Smith, Topographical Engineers.

NOTE.—The observations made at "El Paso" in 1850, 1851, &c., were at a locality opposite the town, and slightly above it. Fort Bliss is lower down, a little below El Paso, at Magoffinsville. The observations are combined as at one locality. (See report of Captain Pope, Topographical Engineers, of railroad explorations, pp. 43, 44, &c., 1854.)

Fort Bliss, Texas.—Nearly opposite El Paso, on the north bank of the Rio Grande. The locality is in the immediate river valley, opening southward. Table lands border the river here. Position that of El Paso, by the Boundary Commission. Altitude that of Molino, near El Paso, by the Boundary Commission.

Fort Fillmore, New Mexico.—Near Mesilla, on the east side of the Rio Grande, near forty miles above El Paso. The locality is a wide valley, with high mountains at ten to fifteen miles distance eastward. Position from Boundary Commission, through Captain Thom, Topographical Engineers. Altitude by Lieutenant Parke, Topographical Engineers.

Doña Ana, New Mexico.—In the Rio Grande valley, near fifty miles above El Paso, and seven miles below the terminus of the Jornada del Muerto. The locality is a wide valley, with high protecting mountains at several miles distance. Position and altitude from the Mexican Boundary Survey.

Fort Thorn, New Mexico.—"In the valley of the Rio Grande, and opposite the centre of the Jornada, sixty miles below Fort Conrad."* The location is at Santa Barbara, elevated fifty feet above the river border, and with a back ground of high mountains west and north. Position derived from those of Doña Ana and Fort Webster. Altitude approximate.

Fort Webster, New Mexico.—At the Copper Mines, near the sources of the Rio Mimbres and of the Gila, Sierra Madre.† In a cañon among abrupt mountains. Position from the Mexican Boundary Survey.

Fort Conrad, New Mexico.—On the west bank of the Rio Grande, near Valverde, and near one hundred and fifty miles above El Paso. The locality is on a gravelly mésa, half a mile west of the river, which rises by successive steps into a rough and high range of mountains. No immediate protection. Position and altitude from Assistant Surgeon Langworthy, 1853; not instrumentally determined.

Fort Craig, New Mexico.—At the northern terminus of the Jornada del Muerto, Rio Grande valley. This post is nine miles below Fort Conrad, southward, and on the river. High mountains approach very near at the west.

Socorro, New Mexico.—On the west bank of the Rio Grande, in a recess of hills and abrupt mountains of great elevation, which nearly surround it, and renders its exposure confined and local. Position from Major Emory's survey. Altitude from Major Emory.

Albuquerque, New Mexico.—At the town of Albuquerque, east bank of the Rio Grande. The valley is here more open, and the mountains less abrupt, than at Socorro. Position and altitude by Captain Whipple, Topographical Engineers, 1854.

Cebolleta, (Laguna,) New Mexico.—At the sources of a branch of the Puerco river, west of the Rio Grande and southwest of Santa Fé. At Cebolleta the post was in a narrow valley or glen, facing eastward, with a very defective and local exposure. Subsequently, in October, 1851, the post was removed twenty miles southward to Laguna, an open valley of the San José river, a tributary of the Rio Puerco. Position and altitude of Laguna from the railroad survey of Captain Whipple, Topographical Engineer, 1854. Position of Cebolleta from Simpson's map.

Abiquiu, New Mexico.—On the Rio de Chama, a tributary of the Rio Grande from the west, northwest of Santa Fé. The locality is a narrow valley in the vicinity of very high mountains. Position from Simpson's map. Altitude approximate.

Santa Fe, New Mexico.—On an elevated plateau, near forty miles eastward of the Rio Grande. The local exposure is very free and open, but lofty mountain ranges enclose the plateaus and the immediate valley of the river. Position and altitude by Major Emory.

Las Vegas, New Mexico.—Near fifty miles eastward from Santa Fé, on the sources of Pecos river, and at the border of the Great Plains. The locality is much confined, and influenced by high mountains at the northwest and northeast, but it opens freely southeastward over the high plains of upper Texas. Position and altitude derived from points of Captain Whipple's line of survey, 1854.

Fort Union, New Mexico.—Northeastward from Santa Fé about fifty miles, on the Moro river, a branch of the Canadian. Locality in a mountainous region, opening eastward to the Great Plains. Position from Assistant Surgeon J. Byrne, determined. Altitude from the same, approximate.

Rayado, New Mexico.—In a mountain valley, near the Cimarron river, a branch of the Canadian from the west. Locality mountainous. Position from Simpson's map of New Mexico.

Taos, New Mexico.—At the town of Taos, north of Santa Fé, an elevated plateau, near a tributary of the Rio Grande from the east. Exposure generally open, similar to Santa Fé in the position of adjacent mountains. Position from Lieutenant Parke's map, 1851. Altitude approximate.

Cantonment Burgwin, New Mexico.—Near the Rio Grande, nine miles northward from Taos. A rough mountainous district. Local features not known. Position and altitude derived from those of Taos.

Fort Massachusetts, New Mexico.—In a sheltered valley on Utah creek, opening into the great valley of San Luis. Lofty mountains rise abruptly on the east, and surround San Luis valley on all sides. Position and latitude from the railroad survey of Captains Gunnison and Beckwith, 1854.

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* Report of explorations by Brevet Captain John Pope, Topographical Engineers, 1854.

† The post was removed in October, 1852, to a point on the Rio Mimbres, eight miles east-northeast of the Copper Mines.

Fort Defiance, New Mexico.—In a greatly elevated district of mesas and mountains, west of the principal chain of the Sierra Madre, and near the sources of the Rio de Chelly, a tributary of the Colorado of California. The locality is "a narrow cañada," affected by local influences, with high mountains northward. Position from Sitgreave's and Whipple's surveys. Altitude derived from points on Whipple's survey; approximate.

Fort Yuma, California.—On the west bank of the Great Colorado, eighty miles from the head of the Gulf of California. The locality is a rocky bluff, seventy-five feet above the river, with sand hills and rocky bluffs bordering the wide valley, and connecting with an immense sand desert on the west. Position by Lieutenant Whipple, Topographical Engineers. Altitude from Lieutenant Parke, 1853.

San Diego, California.—Near the town of San Diego, at the head of a valley six miles distant from the Old Presidio, northeast, and eight miles from the sea shore. The valley opens upon the plain extending to the town and shore hills, of 250 feet elevation, bordering the valley and a range of mountains lying about fifteen miles east.* Position from Lieutenant Williamson's survey map, 1855, based on Boundary Commission and Coast Survey positions for San Diego. Altitude approximate.

San Luis Rey, California.—At a town of that name, near forty miles northwest of San Diego. The locality is in a wide valley opening to the sea, and but four miles from it. Position from Lieutenant Williamson's survey map, 1854.

Post Rancho del Chino, California.—In a wide valley near the Rio Santa Ana, thirty-five miles from the coast, and one hundred and twenty miles north of San Diego. The position is inland, but without peculiar local features. Position from Williamson's map, 1854. Altitude approximate.

Post Rancho de Jurupa, California.—In the valley of the Rio Santa Ana, eighteen miles northeast of Del Chino. The locality is elevated, in a valley three to four miles wide, with rough hills bordering it. (Assistant Surgeon R. O. Abbott, September, 1852.) Position from Lieutenant Williamson's Survey of the Passes of the Sierra Nevada. Altitude derived from that given by Lieutenant Williamson for San Bernardino.

Fort Tejon, California.—At the head of the San Joaquin valley, in a deep narrow valley opening westward. Position and altitude by Lieutenant Williamson, Topographical Engineers.

Fort Miller, California.—On the San Joaquin river, at the foot hills of the Sierra Nevada, and about midway in the entire length of the San Joaquin valley. The locality has the peculiar features of this deep valley, several hundred miles in length and about fifty in width, and shut in by lofty mountain ranges both from the sea and the interior.† Position and altitude by Lieutenant Williamson, Topographical Engineers, 1854.

Monterey, California.—On the south shore of the bay of Monterey, near seventy miles (direct) south-southeast from San Francisco. The locality is a low plain, with a gentle slope in the back ground, and a very full exposure to the sea. The mountains are too far distant to influence the position. Position from Lieutenant Wise, United States navy, 1847, and Coast Survey, 1851. Altitude changed in 1850 and again in 1852.

San Francisco, California.—At Presidio San Francisco, near the city. The locality is an elevated point, three miles west of the city toward the coast, and much more directly exposed to the sea. The entrance to San Francisco bay bounds the point on the north. Position from United States Coast Survey, 1853.

Sonoma, California.—On a small stream entering into San Pablo bay, near forty miles north of San Francisco. The locality is partially protected from the sea exposure by spurs of the coast range of mountains, and its character in this respect is intermediate between the posts of the coast and those of the interior of California. Position derived from Coast Survey and other maps; approximate.

Benicia, California.—At the town of Benicia, entrance to Suisun bay, thirty miles northeast of San Francisco. The locality is one mile eastward from the town, with an exposure over water surface and low plains in all directions except north and northwest, where there are protecting hills. The nearest point on the Pacific coast is southwest thirty-five miles; in a right line west it is distant fifty miles. Position from Com. Ringgold's Chart, United States navy, 1850. Altitude from Assistant Surgeon Griffin.

Camp Anderson, California.—At Sutter City, near Sacramento, 120 miles northeast from San Francisco. The exposure is locally over low plains, with much water surface, in the wide interior valley of Sacramento. Position from Com. Ringgold's Chart, 1850. Altitude approximate.

Camp Far West, California.—On Bear creek, a tributary of Feather river, near fifteen miles from its mouth and from the town of Marysville, and thirty-five miles north-northeast from Sacramento. The locality is a confined valley at the base of the foot hills of the Sierra Nevada, on the east side of the great Sacramento valley. Position from Assistant Surgeon Murray, compared. Altitude approximate.

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* The local description is by Assistant Surgeon Summers, October, 1852. The locality is said to have been changed to other points of the plain and vicinity.

† Assistant Surgeon Sorrel, September, 1851.

Fort Reading, California.—On a small tributary of Sacramento river, one and a half miles from that river, and near five miles from the town of Trinidad. The locality is a confined valley, with dry table lands in the immediate vicinity. It is near the upper extremity of Sacramento valley, and the mountain ranges are from twenty to forty miles distant at either side. Position and altitude from Lieutenant Beckwith, United States army, 1854. (Report of Pacific Railroad Explorations.)

Fort Humboldt, California.—Near the town of Bucksport, Humboldt bay, coast of California. The locality is a plateau of slight elevation fronting the bay and fully open to the Pacific. From the coast, eastward two miles. Position and altitude from Assistant Surgeon Deyerle, derived from United States Coast Surveys.

Fort Jones, California.—At Scott's valley, on a small tributary of Klamath river, near 100 miles from the head of Sacramento valley, and an equal distance in a direct line from the Pacific coast. The locality is not closely confined, though with high mountains—the Siskiou and Salmon ranges—on the south and east. Position and altitude from Assistant Surgeon Crane, December, 1852.

Fort Orford, Oregon.—At Port Orford, near ten miles southward from Cape Blanco, or Orford. The locality is at the head of a bay (Tichenor bay or Ewing Harbor) opening southward, and the exposure very direct to the Pacific. Position from Assistant Surgeon Milhau, 1854, compared.

Fort Lane, Oregon.—Near Jacksonville, Rogue river, in a large valley opening westward, with high mountain ranges in the vicinity. Position from surveys of Oregon, through Assistant Surgeon Crane, 1854.

Astoria, Oregon.—At the town of Astoria, south bank of the Columbia river, near ten miles from the coast of the Pacific. The locality has a free exposure over water service and low plains to the sea, with rough hills at the south and east. Position from United States Coast Survey, 1853.

Fort Vancouver, Columbia Barracks, Oregon.—On the north bank of the Columbia river, eighty miles in a direct line from the Pacific at its mouth. The valley of the river opens northwestward here, and the coast range of mountains protects it from sea exposure. The Barracks and old Fort Vancouver have been occupied alternately ; the difference of position is unimportant. The plain is low and wide, with much water surface in the vicinity. Position by Dr. Evans, survey of Oregon, 1852.

Fort Dalles, Oregon.—At the passage of the Columbia river through the eastern portions of the Cascade range of mountains. The locality is on the south bank of the river, half a mile from it, and elevated about one hundred feet. The exposure is over bare plateaux, with the Cascade range protecting the district at the west. Position from Assistant Surgeon Summers. Altitude from Lieutenant Saxton, (of the North Pacific railroad survey,) 1854.

Fort Steilacoom, Washington Territory.—At Steilacoom, the southern extremity of Puget's sound. The locality is one mile east from the shore of the sound, with open plains and much water surface in the vicinity. The Cascade and coast ranges of mountains enclose the area of the sound and plains. Position from the survey of Oregon, 1852.

Cantonment Loring, Oregon.—Near Fort Hall, upper portion of Lewis' Fork of Columbia. The post is about equidistant from Great Salt Lake and the South Pass, north and west respectively. The locality is on the east bank of the river, five miles above Fort Hall, in a low valley three to five miles wide. The principal mountains are too far distant to affect the position locally. Position and altitude derived from those of Fort Hall, by Fremont, 1843.

Great Salt Lake, Utah.—On a plain near ten miles south of the lake. A chain of mountains is quite near at the east, but in other directions the exposure is open and free. Position by Captain Stansbury, Topographical Engineers, 1850. Altitude from five months barometic observations by Lieutenant Beckwith, United States army, 1854.

Note.—Valuable information respecting the local features of several posts in the least known portions of Texas and New Mexico has been communicated by Assistant Surgeon White.

CONSOLIDATED TABLES AND SUMMARIES.

TEMPERATURE SERIES.

In the following tables the mean results of the observations of temperature are given for each month, season and year during the entire period of observation at each post, with a summary for the whole period. A part only of the records from 1822 to 1830 was published in the first preparation of results; and in the second, incomplete years, and observations not continuous for a series of years, were also omitted. The series as now given embrace all the unpublished as well as published records of the Army Medical Bureau, from the complete organization of the system of meteorological observations in 1822 to the close of 1854, a period of thirty-three years.

FORT KENT, MAINE.

Latitude 47° 15′ *N.*, *Longitude* 68° 35′ *W.* *Altitude above sea* 575 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1842....	6.64	14.04	25.11	33.59	45.15	57.20	64.68	64.05	49.70	40.34	29.35	12.02	34.62	61.98	39.80	10.90	36.82
1843....	19.21	8.53	24.54	40.00	50.96	62.10	64.47	68.70	......	......	......	......	38.50	65.09	......	......	......
1844....	......	......	.....	......	46.84	59.19	59.08	59.68	53.47	39.82	26.59	10.70	......	59.65	39.96	......	......
1845....	7.44	12.31	20.94	32.26	44.49	57.49	61.73	61.78	......	......	......	......	32.56	60.33	......	......	......
Mean ..	11.10	11.63	23.53	35.28	46.86	58.99	62.49	63.55	51.59	40.08	27.97	11.36	35.22	61.68	39.88	11.36	37.04

FORT FAIRFIELD, MAINE.

Latitude 46° 46′, *Longitude* 67° 49′. *Altitude* 415 *feet.*

1842....	11.43	17.14	26.41	34.04	46.66	56.15	65.40	65.07	49.93	40.92	30.05	13.53	35.70	62.21	40.30	14.03	38.06
1843....	19.90	10.17	23.18	38.40	49.03	57.96	60.16	64.74	......	......	......	......	36.87	60.95	. ....	......	......
Mean ..	15.66	13.66	24.80	36.22	47.84	57.06	62.78	64.90	49.93	40.92	30.05	13.53	36.29	61.58	40.30	14.28	38.11

HANCOCK BARRACKS, MAINE.

Latitude 46° 07′, *Longitude* 67° 49′. *Altitude* 620 *feet.*

1829....	11.86	15.15	25.32	41.31	56.44	61.70	60.08	62.46	49.29	42.19	26.94	25.77	41.02	61.41	39.47	17.59	39.87
1830....	6.95	13.54	27.92	46.18	52.46	60.80	68.12	64 40	53.97	47.49	38.65	27.19	42.19	64.44	46.70	15.89	42.30
1831....	12.51	19.19	31.31	38.23	56.71	66.16	68.73	67.70	57.44	46.28	36.07	8.64	42.08	67.53	46.59	13.44	42.41
1832....	17.41	12.68	27.57	33.06	49.49	55.60	62.16	66.33	57.44	46.36	31.46	15.41	36.70	61.37	45.09	15.17	39.58
1833....	14.14	11.69	23.56	39.77	53.72	55.30	65.66	61.24	52.88	45.65	31.26	24.62	39.02	60.73	42.26	16.82	37.46
1834....	10.12	23.89	27.20	42.55	47.67	59.62	68.48	63.45	50.41	41.94	30.67	11.24	39.14	63.85	44.01	15.08	40.52
1835....	16.70	13.72	23.28	37.07	47.18	59.79	64.99	62.93	53.23	48.03	27.97	9.74	35.84	62.57	43.08	13.39	38.72
1836....	16.41	11.51	28.37	37.66	49.22	62.73	67.35	62.62	55.18	38 10	30.10	17.19	38.42	64.23	41.13	15.04	39.70

HANCOCK BARRACKS, MAINE—Continued.

Latitude 46° 07′, *Longitude* 67° 49′. *Altitude* 620 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1837....	16.09	16.37	27.03	39.42	49.98	60.79	63.24	63.09	56.85	41.20	29.10	17.96	38.81	62.37	42.38	16.81	40.09
1838....	20.60	13.63	34.76	36.93	50.62	67.02	68.27	63.49	56.44	41.13	27.59	14.28	40.74	66.26	41.72	16.17	41.22
1839....	16.66	19.41	27.43	42.92	48.43	57.85	67.01	65.89	56.52	45.14	31.16	25.48	39.59	63.58	44.27	20.52	41.99
1840....	9.81	23.66	28.77	41.39	52.46	61.64	67.84	68.10	56.16	43.50	31.96	15.97	40.87	65.86	43.87	16.48	42.02
1841....	21.52	15.83	26.87	34.88	48.67	57.09	64.86	67.70	59.48	39.13	32.77	23.32	36.81	63.22	43.79	20.22	41.01
1842....	15.17	20.84	30.91	38.18	46.93	58.76	65.79	66.24	52.82	43.93	31.39	14.90	38.67	62.04	42.73	17.04	40.12
1843....	22.44	12.72	25.98	41.47	50.75	59.38	62.00	64.75	51.50	41.00	27.66	20.75	39.40	62.04	40.05	18.64	40.03
1844....	6.45	18.07	25.62	41.63	48.90	60.37	60.66	61.75	55.48	42.74	28.72	17.50	38.72	60.93	42.31	14.01	38.99
1845 ...	15.39	16.89	26.82	37.47	48.77	60.01	62.92	64.82	......	......	......	......	37.69	62.58	......	......	......
Mean 17 y'rs	14.72	16.40	27.57	39.42	50.47	60.28	65.18	64.53	55.25	43.37	30.84	18.12	39.15	63.33	43.15	16.41	40.51

FORT SULLIVAN, MAINE.

Latitude 44° 54′, *Longitude* 66° 58′. *Altitude* 70 *feet.*

1822....	17.86	22.98	32.60	37.17	50.49	57.99	62.34	62.24	55.48	46.68	37.03	24.64	40.09	60.86	47.39	21.83	42.54
1823....	21.02	17.30	28.91	39.02	47.61	54.73	62.67	62.22	54.97	47.36	31.65	28.30	38.51	59.87	44.66	22.21	41.31
1824....	20.91	21.11	29.30	40.38	46.07	55.85	63.52	62.27	56.69	45.33	34.28	27.67	38.58	60.55	45.43	23.23	41.95
1825....	21.18	22.35	32.92	42.29	50.14	60.97	67.33	64.83	56.57	47.81	37.94	28.33	41.78	64.38	47.44	23.95	44.39
1826....	23.17	22.72	31.17	39.61	53.96	60.07	66.90	67.53	59.70	48.71	38.24	27.83	41.58	64.83	48.88	24.57	44.96
1827....	20.48	23.07	32.00	43.54	51.54	59.21	66.17	64.94	60.81	51.12	......	......	42.36	63.44	......	......	......
1828....	22.44	29.61	31.62	37.52	50.08	57.47	61.50	65.00	58.42	47.19	38.53	26.18	39.74	61.31	48.05	26.08	43.79
1829....	19.57	21.29	29.32	40.93	51.79	58.01	61.08	61.49	53.24	45.89	37.35	31.67	40.68	60.19	45.49	24.28	42.66
1830....	18.17	19.42	31.05	44.08	49.69	57.07	63.63	61.76	54.37	48.61	41.92	32.37	41.61	60.82	48.30	23.32	43.51
1831....	19.87	24.57	35.45	42.81	55.83	60.27	67.48	66.58	58.96	48.97	39.93	14.77	44.69	64.78	49.29	19.80	44.64
1832....	25.78	20.35	28.52	35.88	49.25	54.36	57.53	62.11	55.07	48.08	36.43	23.37	37.88	58.00	46.86	23.17	41.48
1833....	23.18	20.19	29.23	41.95	50.27	54.68	62.09	60.50	58.28	48.51	36.46	29.90	40.48	59.09	47.75	24.42	42.93
1834....	19.48	29.99	33.21	43.32	47.77	58.29	62.71	61.04	58.64	46.00	36.96	20.42	41.43	60.68	47.20	23.30	43.17
1835....	24.34	22.20	29.40	38.11	49.09	55.38	60.50	59.67	57.02	50.45	36.22	17.28	38.20	58.32	47.90	21.27	41.43
1836....	21.49	17.99	27.73	37.74	45.47	55.13	......	......	......	......	......	......	36.98	......	......	......	......
1841....	30.13	23.97	31.34	36.30	45.05	56.68	60.82	62.10	60.36	44.25	36.42	28.85	37.56	59.87	47.01	27.65	43.02
1842 ...	23 95	27.96	32.75	39.77	47.77	53.15	63.69	61.41	54.91	45.45	36.10	22.88	40.09	59.41	45.49	24.93	42.48
1843....	29.07	20.30	27.40	40.48	49.26	57.08	61.28	61.18	56.48	47.72	35.38	27.56	39.05	59.85	46.53	25.64	42.77
1844....	16.17	25.61	33.40	45.48	50.33	58.01	59.19	60.57	58.75	49.08	36.89	27.16	43.07	59.26	48.24	22.98	43.39
1845....	23.63	24.11	31.45	40.78	47.07	57.45	60.24	63.24	......	......	......	......	39.77	60.31	......	......	......
1849 ...	......	......	......	......	.....	......	61.38	62.36	57.62	47.80	43.54	23.28	......	......	49.65	......	......
1850....	23.88	27.17	27.20	40.87	46.55	55.95	61.69	61.51	57.80	50.45	39.71	23.96	38.24	59.72	49.32	25.00	43.07
1851....	21.52	26.48	31.68	41.77	48.18	54.31	59.68	61.55	57.68	51.88	35.21	22.41	40.54	58.51	48.26	23.47	42.69
1852....	22.16	26.93	30.38	40.25	49.51	54.00	61.08	60.76	57.72	47.59	38.28	32.85	40.05	58.61	47.86	27.31	43.46
1853...	27.51	27.31	30.92	40.65	48.83	56.12	61.64	61.20	......	......	......	.....	40.13	59.62	......	......	......
Mean 25 y'rs	22.37	23.54	30.79	40.44	49.23	56.76	62.33	62.42	57.25	47.95	37.35	25.79	40.15	60.50	47.52	23.90	43.02

FORT PREBLE, MAINE.

Latitude 43° 39′, *Longitude* 70° 20′. *Altitude,* 20 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1824....	24.82	24.42	33.92	43.96	51.51	62.87	68.66	66.76	60.72	48.54	34.98	29.25	43.13	66.10	48.08	26.16	45.87
1825....	22.59	24.63	35.62	46.56	53.47	68.00	73.56	68.05	58.65	49.97	38.05	28.26	45.22	69.87	48.89	25.16	47.28
1826....	21.52	24.51	34.76	41.41	59.46	65.32	72.33	68.67	61.34	50.43	37.05	28.14	45.21	68.77	49.61	24.72	47.05
1827....	19.65	24.56	33.92	46.74	54.26	62.91	70.06	66 74	61.52	50.53	32.54	27.74	44.97	66.57	48.20	23.98	45.93
1828....	27.02	33.76	34.83	43.02	52.86	67.31	70.85	70.66	62.18	49.10	39.13	32.43	43.57	69.61	50.14	24.59	46.93
1829....	20.69	20.64	30.84	44.06	56.81	64.53	68.06	66.45	55.09	48.21	37.20	32.73	43.90	66.35	46.83	24.69	44.94
1830....	19.93	20.80	34.04	47.96	54.04	62.42	69.87	66.88	57.88	50.30	44.52	32.41	45.35	66.39	50.90	24.38	46.75
1831....	21.06	24.47	35.45	46.02	56.76	68.85	71.53	70.48	61.44	50.84	39.22	15.14	46.08	70.29	50.50	20.22	46.77
1832....	23.41	22.14	32.96	......	......	......	63.80	66.30	60.00	51.51	39.35	26.97	......	......	50.29	24.17	.....
1833....	26.75	21.64	29.50	44.77	56.20	60.25	69.15	65.15	58.98	48.28	36.50	28.96	43.49	64.85	47.92	25.78	45 51
1834....	20.36	29.85	33.83	45.14	51.58	62.81	71.40	67.67	61.47	47.39	36.29	24.33	43.52	67.39	48.38	24.85	46.01
1835....	23.96	21.24	30.50	40.93	53.08	63.26	68.91	66.08	57.64	51.17	37.04	19.79	41.50	66.08	48.62	21.66	44.46
1841....	27.13	21.89	30.19	38.39	48.49	60.87	64.39	64.22	59.94	43.65	36.26	28.84	39.02	63.16	46.62	25.95	43.69
1842....	25.76	30.04	35.97	41.89	48.39	57.67	67.02	63.01	55.89	47.81	35.26	24.47	42.18	62.57	46.32	26.76	44.46
1843....	29.06	......	26.89	40.68	49.73	58.36	62.89	65.38	56.40	46.73	34.38	29.09	39.10	62.21	45.84	......	......
1844....	14.36	21.82	31.03	43.00	51.25	60.75	63.00	62.75	58.00	47.25	35.90	26.25	41.76	62.17	47.05	20.81	42.95
1845....	23.67	22.50	30.97	40.70	51.85	62.27	65.52	66.17	56.57	......	......	......	41.17	64.65	......	......	......
1849....	......	......	......	......	......	68.92	69.69	69.52	63.20	53.50	50.79	26.14	......	69.38	41.87	......	......
1850....	24.69	27.41	31.77	40.25	49.47	62.26	66.65	64.86	58.40	50.27	40.02	22.40	40.50	64.59	49.56	24.83	44.87
1851....	20.01	25.28	33.30	42.60	51.61	58.71	66.59	65.19	60.00	51.56	35.09	20.56	42.50	63.50	48.88	21.95	44.21
1852....	18.43	23.04	29.41	39.10	51.96	63.71	68.33	64.70	59.11	48.16	36.38	32.00	40.16	65.58	47.88	24.49	44.53
1853....	23.25	25.84	33.41	42.02	53.66	63.24	68.12	65.34	......	......	......	......	43.03	65.57	......	......	......
Mean 22 y'rs	22.78	24.52	32.53	42.96	52.82	63.11	68.20	66.41	56.91	49.76	37.80	26.80	42.77	65.24	48.16	24.70	45.22

FORT CONSTITUTION, NEW HAMPSHIRE.

Latitude 43° 04′, *Longitude* 70° 49′. *Altitude* 40 *feet.*

1824....	27.83	26.25	34.84	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1825....	27.13	28.50	37.60	46.54	53.59	65.59	71.32	64.90	59.23	51.38	39.41	32.96	45.91	67.27	50.00	29.53	48.18
1826....	28.84	31.79	36.31	43.05	58.65	62.71	68.54	67.61	61.88	51.73	40.50	30.21	46.00	66.29	51.37	30.28	48.48
1827....	21.31	26.88	35.52	47.63	53.61	61.75	67.64	65.16	60.44	51.40	33.87	29.42	45.59	64.85	48.57	25.87	46.22
1828....	29.37	35.47	36.14	42.91	59.25	64.05	69.16	68.36	62.24	50.40	41.85	35.01	46.10	67.19	51.50	33.28	49.52
1829....	24.38	22.79	31.29	43.86	56.11	62.64	65.65	65.00	55.72	48.54	39.52	36.48	43.75	64.43	47.93	27.88	46.00
1830....	22.92	23.28	35.45	46.84	53.15	62.76	69.12	66.36	57.95	51 .38	46.04	33.40	45.15	66.08	51.79	26.53	47.39
1831....	21.78	25.28	39.50	45.64	55.03	66.58	68.86	68.52	60.06	51.71	40 74	17.07	46.72	67.99	50.84	21.37	46.73
1832....	25.69	25.65	34.76	40.12	50.42	59.65	63.31	64.62	57.36	51.30	40.77	29.36	41.76	62.53	49.81	27.34	45.36
1833....	28.66	23.48	30.69	44.96	55.11	59.41	66.77	63.43	58.81	48.73	37.49	31.13	43.59	63.20	48.34	27.42	45.64
1834....	20.10	31.98	34.49	44.13	51.07	60.32	68.14	64.62	60.91	47.39	39.21	27.21	43.23	64.36	49.17	26.43	45.80
1835....	26.29	24.22	31.54	41.83	52.59	61.35	65.97	63.32	56.61	50.77	38.65	22.52	41.99	63.55	48.78	24.34	44.66
1836....	25.41	19.69	30.17	39.67	50.70	55.76	65.73	60.48	57.11	44.50	36.63	28.47	40.18	60.66	46.08	24.52	42.86
1837....	21.80	24.14	30.25	41.45	48.24	59.12	62.34	61.20	55.41	47.30	37.94	29.12	39.98	60.89	46.88	25.03	43.19
1838....	31.83	19.20	34.64	38.71	49.99	63.13	68.10	64.51	58.05	46.67	34.51	25.65	41.11	65.25	46.41	25.56	44.58
1839....	25.89	27.66	32.72	43.62	50.62	57.77	65.33	64.09	59.06	50.62	37.34	31.66	42.32	62.40	49.01	28.40	45.53
1840....	18.65	31.98	33.70	45.70	53.13	61.75	66.58	65.09	58.06	......	......	......	44.18	64.47	......	......	......
1841....	......	......	......	......	......	......	......	......	......	50.42	40.00	32.51	......	......	......	......	......

FORT CONSTITUTION, NEW HAMPSHIRE—Continued.

Latitude 43° 04′, *Longitude* 70° 49′. *Altitude* 40 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1842...	28.38	30.71	37.19	42.26	50.61	57.46	65.61	64.87	57.33	48.74	37.66	25.09	43.35	62.65	47.91	28.06	45.49
1843....	31.69	19.55	26.58	43.81	55.25	64.30	63.45	69.80	62.13	47.69	35.71	28.83	41.88	67.52	48.51	26.69	46.15
1844....	17.85	25.32	34.17	45.40	53.39	61.91	64.56	63.79	59.73	48.68	38.26	29.46	44.32	63.42	48.89	24.21	45.21
1845....	26.00	24.99	33.86	42.01	52.99	61.28	67.86	66.80	......	......	......	......	42.95	65.31	......	......	......
1849....	......	......	......	......	......	......	68.74	68.78	61.28	48.91	44.70	26.28	......	......	51.63	......	......
1850....	25.39	28.57	32.05	40.66	49.51	64.33	67.20	65.41	58.48	50.02	40.69	23.91	40.74	65.65	49.73	25.96	45.52
1851....	22.82	27.33	34.98	42.09	52.27	60.91	67.70	65.49	58.65	51.33	34.22	20.62	43.11	64.70	48.06	23.59	44.87
1852...	19.76	25.02	31.21	39.00	53.95	64.20	67.37	63.95	58.90	48.23	35.76	32.13	41.42	65.14	47.63	25.64	44.96
1853....	24.20	25.54	32.92	39.17	52.84	64.56	67.45	60.53	59.46	......	......	......	41.64	64.18	......	......	......
Mean 25 y'rs	24.95	26.21	33.71	42.96	53.00	60.97	67.10	65.07	58.92	49.47	38.75	28.63	43.22	64.38	49.05	26.60	45.81

FORT INDEPENDENCE, BOSTON HARBOR, MASSACHUSETTS.

Latitude 42° 20′, *Longitude* 71° 00′. *Altitude*, 50 *feet.*

1824....	29.63	28.40	35.33	46.16	55.98	64.57	71.07	67.78	63.46	52.89	40.02	34.22	45.79	67.81	52.12	30.75	49.12
1825....	28.73	30.45	40.14	48.76	57.31	68.86	75.20	71.54	62.26	54.44	42.66	32.61	48.74	71.87	53.12	30.60	51.08
1826....	29.40	30.58	36.38	43.28	62.02	65.97	71.01	69.27	63.80	54.05	41.64	32.92	47.23	68.75	53.16	30.97	50.03
1827....	21.76	27.98	37.26	49.01	56.15	63.67	70.20	68.52	63.59	53.70	37.22	......	47.47	67.46	51.50	......	......
1828....	31.48	36.14	38.06	43.44	55.62	67.06	70 71	71.21	64.26	53.18	44.15	36.75	45.71	69.66	53.86	34.96	51.05
1829....	26.58	22.89	30.46	46.09	57.55	......	66.56	67.53	59.20	52.47	42.67	39.56	44.70	......	51.45	29.68	......
1830....	27.39	26.46	38.39	49.71	58.06	66.14	71.32	69.48	61.84	55.68	48.80	36.97	48.72	68.98	55.44	30.27	50.85
1831....	25.08	26.62	42.40	49.48	59.17	70.55	68.86	71.55	64.12	55.70	42.33	20.26	50.35	70.32	54.05	23.98	49.67
1832....	29.12	29.17	37.46	42.39	52.60	64.07	67.75	69.24	62.17	54.66	44.75	32.47	44.15	67.02	53.86	30.25	48.82
1833 ...	31.61	26.50	33.86	49.90	59.95	64.10	70.77	68.47	63.05	......	......	......	47.90	67.78	......	......	......
1834....	24.55	33.90	36.59	45.55	53.23	63.26	73.32	68.30	62.78	50.02	39.18	27.79	45.12	68.29	50.66	28.75	48.20
1835....	26.23	23.33	31.53	42.09	54.02	66.02	......	......	......	......	......	......	42.55	......	......	......	......
1836....	25.88	19.16	30.81	43.93	59.27	61.96	72.11	67.33	61.70	.47.10	36.84	29.91	44.69	67.13	48.55	24.98	46.34
1837....	21.95	25.07	30.76	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1851....	......	......	......	......	56.32	64.32	71.11	69.02	61.72	53.64	36.92	23.87	......	68.15	50.76	......	......
1852....	23.19	28.50	32.98	41.26	56.51	65.22	72.09	66.75	62.91	51.81	39.75	36.58	43.58	68.02	51.49	29.42	48.13
1853....	27.98	30.33	37.58	45.67	57.15	67.57	71.17	69.98	63.98	50.72	41.93	28.67	46.80	69.58	52.21	29.00	49.40
1854 ...	25.52	25.00	32.92	42.41	58.76	65.91	74.07	69.70	63.71	55.29	44.27	26.95	44.70	69.89	54.42	25.82	48.71
Mean 17 y'rs	26.83	27.67	35.46	45.57	57.04	65.57	71.08	69.10	62.78	53.02	41.54	31.39	46.02	68.58	52.45	28.63	48.92

WATERTOWN ARSENAL, MASSACHUSETTS.

Latitude 41° 21′, *Longitude* 71° 09′.

1837....	21.51	25.92	31.52	44.20	53.70	63.68	67.69	65.16	59.15	49.09	40.07	29.36	43.07	65.51	49.64	25.59	45.91
1838....	32.96	19.01	35.64	41.30	54.57	63.21	74.04	69.98	62.25	47.53	35.72	26.71	43.83	70.74	48.50	26.22	47.35
1839....	27.24	28.05	36.41	47.92	55.56	61.34	71.79	69.00	63.25	52.49	37.58	30.57	46.63	67.37	51.10	28.62	48.43
1840....	19.18	33.45	37.09	47.66	56.75	66.16	72.56	71.15	60.82	51.38	38.78	27.18	47.17	69.95	50.32	26.60	48.51
1841....	30.82	26.40	35.28	.....	......	......	69.08	69.04	62.68	44.86	37.60	31.48	......	......	48.38	29.57	......
1843....	31.69	19.55	26.58	43.81	55.25	64.30	63.45	69.80	62.13	47.69	35.71	28.83	41.88	67.52	48.51	26.69	46.15
Mean 6 y'rs.	27.23	25.40	33.75	44.93	55.17	64.74	70.60	69.02	61.71	48.84	37.58	29.02	44.63	68.12	49.38	27.22	47 34

FORT ADAMS, RHODE ISLAND.

Latitude 41° 29′, *Longitude* 71° 20′. *Altitude* 40 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1842....	32.26	35.43	40.25	46.02	55.20	64.60	73.11	71.59	63.13	52.24	38.06	30.92	47.15	69.76	51.14	32.90	50.23
1843....	34.40	24.45	29.80	45.16	55.42	65.28	73.22	72.87	64.69	51.30	37.13	33.31	43.46	70.46	51.01	30.72	48.66
1844....	23.79	29.02	35.62	47.69	57.56	66.80	71.00	71.11	63.48	53.63	42.73	34.20	46.96	69.04	53.28	29.00	49.72
1845....	32.49	28.91	37.75	44.92	53.55	64.36	71.83	72.22	62.84	53.87	46.67	29.28	45.41	69.47	48.35	30.23	48.36
1846....	30.67	25.70	36.35	45.83	54.52	63.37	70.55	69.94	65.27	......	......	......	45.57	67.95	......	......	......
1848....	......	......	......	......	......	......	......	......	......	53.01	41.00	39.06	......	......	......	......	......
1849....	26.01	24.82	38.15	44.90	53.19	67.04	71.49	71.84	63.50	52.94	50.38	34.56	45.41	70.12	55.61	28.46	49.90
1850....	33.34	34.07	35.40	42.74	53.04	65.04	72.63	70.03	63.64	55.49	45.98	32.72	43.73	69.25	55.04	33.38	50.35
1851....	33.03	34.55	38.56	46.33	55.81	64.50	71.71	69.13	63.40	56.79	41.10	28.38	46.90	68.44	53.76	31.99	50.27
1852 ...	26.49	30.03	35.26	42.15	55.15	65.72	72.33	69.35	63.76	54.62	42.72	40.56	44.19	69.13	53.70	32.36	49.84
1853....	30.85	33.20	38.34	45.34	56.36	67.48	72.87	70.84	64.65	......	......	......	46.68	70.40	......	......	......
Mean 10 y'rs	30.34	30.02	36.55	45.11	54.98	65.43	72.07	70.89	64.07	53.76	42.86	30.30	45.55	69.46	53.56	30.22	49.70

FORT WOLCOTT, NEWPORT HARBOR, RHODE ISLAND.

Latitude 41° 30′, *Longitude* 71° 20′. *Altitude* 20 *feet.*

1822...	26.54	31.82	38.44	47.45	59.93	67.27	74.35	70.80	68.58	55.83	47.95	34.47	48.61	70.81	57.45	30.94	51.95
1823....	27.23	26.50	36.39	45.80	54.77	64.47	70.85	71.08	62.61	52.49	39.84	35.80	45.65	68.80	51.65	29.84	48.99
1824....	33.54	32.14	37.61	47.86	55.15	65.69	71.46	68.96	64.19	54.60	42.71	37.16	46.87	68.70	53.83	34.28	50.92
1825....	31.51	32.99	40.86	47.96	56.61	69.12	74.63	71.41	63.16	56.08	44.63	34.97	48.48	71.72	54.62	33.16	51.99
1826....	33.16	33.63	38.98	44.03	59.58	64.24	72.33	71.26	65.82	55.66	43.43	34.62	47.53	69.28	41.24	37.13	48.79
1827....	25.05	31.28	38.30	48.42	55.59	64.52	71.16	69.61	63.70	56.06	37.70	36.35	47.44	68.43	52.49	30.89	49.81
1828....	33.95	38.68	40.10	44.93	56.36	67.45	71.47	72.70	65.93	54.23	45.77	38.40	47.13	70.54	53.31	37.34	52.08
1829....	28.90	24.97	32.88	44.67	55.83	63.23	66.52	67.57	58.39	50.66	42.72	39.37	44.46	65.77	50.59	31.08	47.98
1830....	29.47	27.52	37.90	46.53	55.05	63.84	70.35	68.24	60.74	54.42	46.02	37.59	46.49	67.48	53.73	31.53	49.81
1831....	25.04	26.66	39.68	47.44	56.75	67.43	69.95	71.62	64.23	55.88	42.75	22.71	47.96	69.67	54.29	24.80	49.18
1832....	29.27	30.25	36.30	40.89	50.56	59.67	65.78	68.24	61.70	53.69	44.43	34.22	42.58	64.56	53.27	31.58	48.00
1833....	33.20	28.29	33.94	46.55	56.57	61.13	67.76	66.36	61.60	52.90	40.36	34.39	45.69	65.08	51.62	31.96	48.59
1834....	26.79	34.90	37.23	46.26	52.01	61.79	69.85	67.98	64.02	50.66	40.48	31.57	45.17	66.54	51.72	31.09	48.63
1835....	29.24	27.13	32.69	41.44	53.82	63.43	69.31	68.40	60.43	57.04	43.64	28.41	42.65	67.05	53.70	28.26	47.91
Mean 14 y'rs	29.34	30.56	37.31	45.73	55.61	65.23	70.41	69.59	63.22	54.30	43.03	34.29	46.22	68.41	53.52	34.73	50.72

FORT TRUMBULL, CONNECTICUT.

Latitude 41° 21′, *Longitude* 72° 06′. *Altitude* 23 *feet.*

1833....	......	......	......	53.49	61.94	65.20	72.38	69.79	65.10	54.82	43.76	33.98	......	69.12	54.56	......	......
1834....	27.11	36.14	38.37	50.16	57.37	66.85	75.80	71.67	65.42	48.78	38.66	29.90	48.63	71.44	50.95	31.05	50.52
1835....	27.79	26.68	34.12	44.61	57.93	68.85	73.33	70.93	59.43	56.10	43.36	26.96	45.55	71.04	52.96	27.14	49.17
1843....	32.59	19.97	25.85	44.68	53.88	63.65	67.67	69.03	63.21	49.01	36.81	31.25	41.47	66.78	49.68	27.94	46.47
1844....	20.92	27.23	35.28	48.80	57.00	63.95	68.44	68.40	61.47	50.18	39.59	29.20	47.03	66.93	50.41	25.78	47.54
1845....	31.44	28.77	37.94	45.06	54.00	65.16	70.23	71.35	62.56	54.36	46.39	27.93	45.67	68.91	54.44	29.38	49.60

FORT TRUMBULL, CONNECTICUT—Continued.

Latitude 41° 21′, *Longitude* 72° 06′. *Altitude* 23 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1846....	30.19	25.62	38.81	48.10	55.62	......	......	......	......	......	......	......	47.31	......	......	......	......
1849....	......	......	......	......	52.32	66.04	71.47	71.14	62.82	52.02	48.97	33.18	......	69.55	54.60	......	......
1850....	33.31	33.90	36.10	43.32	53.69	67.18	72.69	69.27	62.77	54.78	44.82	31.52	44.37	69.71	54.12	32.91	50.28
1851...	32.22	33.15	39.28	47.30	56.25	65.40	72.08	68.91	63.67	55.07	39.88	27.69	47.61	68.79	52.87	31.02	50.07
1852....	25.85	30.53	35.90	43.12	57.63	66.88	72.34	69.15	63.37	54.63	41.20	39.45	45.55	69.45	53.07	31.94	50.00
1853....	29.60	33.59	39.25	46.68	58.01	68.23	71.74	71.32	66.15	......	......	......	47.98	70.43	......	......	......
Mean 11 y'rs	29.10	29.56	36.09	46.85	56.30	66.12	71.56	70.12	63.27	52.97	42.34	31.11	46.41	69.27	52.86	29.92	49.62

FORT COLUMBUS, NEW YORK HARBOR.

Latitude 40° 42′, *Longitude* 74° 01′. *Altitude* 23 *feet.*

1822....	26.17	29.82	42.15	52.35	63.35	70.64	78.39	74.65	70.88	59.10	48.38	34.53	32.62	74.56	59.45	30.17	49.20
1823....	31.21	25.29	36.38	49.60	58.86	68.95	74.96	73.43	64.09	51.75	38.23	34.74	48.28	72.11	51.36	30.41	50.54
1824....	35.29	31.28	37.57	49.94	58.02	68.26	73.62	70.37	64.15	55.08	42.71	38.51	48.51	70.75	53.98	35.03	52.07
1825....	32.74	32.63	43.71	51.35	62.51	74.58	81.29	73.99	67.42	57.11	43.90	31.70	52 52	76.62	56.21	32.36	54.43
1826....	28.89	31.31	37.67	43.27	64.88	69.77	75.94	75.90	68.85	56.53	43.66	33.14	48.61	73.87	56.35	31.11	52.48
1827....	24.02	31.95	39.34	52.06	59.54	68.60	75.63	74.34	67.05	55.90	39.66	33.21	50.31	72.86	54.20	29.73	51.77
1828....	33.59	41.32	40.75	45.27	60.07	72.26	74.67	76.50	66.79	53.39	44.94	38.67	48.70	74.48	55.04	37.86	54.02
1829....	27.05	25.44	37.88	52.27	63.85	71.14	73.73	75.00	64.14	54.85	43.87	41.30	51.33	73.29	54.29	31.26	52.54
1830....	31.74	31.93	41.05	52.88	60.34	70.45	78.75	77.04	67.11	58.67	51.08	36.96	51.42	75.41	58.95	33.54	54.83
1831....	25.73	26.28	41.98	49.96	61.17	74.08	76.41	76.38	66.88	55.44	43.27	22.20	51.04	75.62	55.20	24.74	51.65
1832....	28.51	32.23	38.98	48.30	56.11	67.14	73.32	73.26	65.40	54.06	44.72	36.45	47.80	71.24	54.73	32.41	51.54
1833....	35.08	30.91	35.86	51.34	60.73	66.13	74.72	70.57	64.85	52.19	41.48	34.58	49.34	70.47	52.84	33.52	51.54
1834...	28.28	37.21	39.64	48.49	56.54	66.75	76.19	71.85	64.22	51.64	40.99	30.76	48.22	71.60	52.28	32.08	51.04
1835....	29.37	27.22	35.59	45.80	58.44	67.12	72.50	69.78	60.69	56.46	43.81	28.36	46.61	69.80	53.65	28.32	49.59
1836....	27.82	21.51	32.21	44.32	58.01	62.28	73.01	67.92	63.97	45.86	38.66	31.18	44.85	67.74	49.50	28.17	47.56
1837....	26.36	29.85	34.91	46.03	55.29	64.52	69.51	68.64	62.18	59.22	44.03	35.60	45.22	67.55	55.14	30.60	49.65
1838....	34.49	23.29	37.81	44.16	56.16	70.39	77.18	74.71	65.38	51.66	40.02	29.09	46.04	74.09	52.35	28.95	50.35
1839....	30.48	31.93	38.64	49.81	57.76	63.40	72.97	70.85	66.72	56.31	39.93	35.62	48.74	69.07	54.32	32.68	51.20
1840....	23.80	34.85	40.26	51.47	58.02	67.05	72.30	73.32	63.96	55.17	43.58	30.36	49.92	70.89	54.24	29.67	51.18
1841....	30.84	28.12	37.40	45.98	56.49	69.11	73.95	73.40	63.58	51.86	44.88	33.82	46.62	72.15	55.11	30.93	51.20
1842....	33.72	38.14	44.59	51.53	58.46	67.19	74.38	72.91	67.14	51.73	39.21	32.12	51.53	71.49	56.03	34.66	53.43
1843....	36.47	25.66	30.31	47.28	59.08	71.25	74.11	74.27	68.03	53.69	40.50	36.12	45.59	73.21	54.07	32.75	51.40
1844....	25.76	29.74	38.79	53.55	63.29	69.22	74.54	72.93	65.79	53.52	43.33	33.97	51.88	72.23	54.21	29.82	52.03
1845....	35.03	31.95	42.12	50.79	60.54	71.30	76.60	76.04	65.49	62.81	45.68	28.27	51.15	74.65	57.99	31.75	53.88
1846....	31.37	27.41	39.31	50.33	60.41	67.36	72.21	73.25	69.71	54.00	48.15	33.90	50.02	70.94	57.29	30.89	52.28
1847....	32.40	31.60	36.01	49.50	59.51	70.84	75.61	72.30	64.73	51.40	46.04	37.90	48.34	72.92	54.06	33.97	52.32
1848....	33.79	31.21	36.14	50.10	61.38	69.11	74.28	73.54	63.44	54.15	39.74	39.29	49.87	72.31	52.44	34.76	52.34
1849....	25.78	24.68	37.84	47.55	55.00	69.50	72.80	72.33	64.31	52.64	48.19	32.07	46.80	71.54	55.05	27.51	50.22
1850....	32.78	33.42	36.16	44.08	54.45	68.63	75.06	71.04	64.32	53.78	45.19	33.22	44.90	71.24	54.43	33.14	50.93
1851....	32.15	33.68	39.71	49.13	58.24	68.45	75.64	74.00	67.86	57.32	42.24	27.39	49.02	72.69	55.80	31.07	52.15
1852....	24.33	30.74	36.72	43.73	60.30	69.70	76.61	73.27	63.77	55.61	41.64	40.45	46.92	73.19	53.67	31.84	51.40
1853....	32.08	33.50	39.58	48.13	60.25	71.20	72.77	73.52	66.41	52.01	44.31	33.13	49.32	72.50	54.24	32.90	52.24
1854....	28.71	28.17	36.17	45.09	59.96	68.49	75.89	72.88	66.35	55.71	43.67	27.52	47.07	72.42	55.24	28.13	50.71
Mean 33 y'rs	30.18	30.44	38.28	43.65	59.30	68.30	74.83	73.16	65.78	54.56	43.32	33.52	48.74	72.10	54.55	31.38	51.69

NOTE.—The record for 1837 and 1838 was at *Fort Wood*, Bedlow's Island; so near that it is incorporated in the mean for the series at Fort Columbus.

FORT HAMILTON, NEW YORK HARBOR.

Latitude 40° 37′, *Longitude* 74° 02′. *Altitude* 25 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	37.27	26.80	30.80	48.50	56.90	68.40	71.90	74.40	68.45	53.95	42.10	35.15	45.40	71.57	54.83	33.07	51.22
1844....	26.29	29.82	38.04	51.51	61.50	66.87	71.39	71.82	66.07	53.10	43.42	34.00	50.35	70.03	54.20	30.04	51.15
1845....	34.55	31.91	41.61	49.59	58.33	68.73	74.48	75.42	65.97	57.24	47.18	28.97	49.84	72.88	56.80	31.81	52.83
1846....	31.94	27.04	40.03	49.26	59.27	65.67	71.96	73.04	69.96	54.32	49.15	35.19	49.52	70.22	57.81	31.39	52.23
1847....	32.80	32.26	36.71	45.50	54.97	64.84	74.74	72.69	65.24	54.44	47.23	37.75	45.73	70.76	55.64	34.27	51.60
1848....	35.67	31.14	35.33	48.59	59.91	67.66	71.08	73.10	63.96	55.00	41.19	39.98	48.28	70.61	53.38	35.60	51.97
1849 ...	26.74	25.85	38.33	46.10	54.13	69.01	71.57	72.57	65.02	53.06	49.72	33.89	46.19	71.05	55.93	26.62	49.95
1850....	34.25	35.37	37.17	45.00	54.35	68.90	73.32	72.12	66.55	55.72	47.05	34.67	45.51	71.35	56.44	34.76	52.01
1851....	34.90	36.40	40.72	48.95	58.62	67.50	73.56	70.67	65.35	58.32	43.67	31.00	49.43	70.57	55.75	34.10	52.46
1852 ...	25.42	30.48	40.20	46.20	58.32	68.70	74.02	71.02	67.60	58.72	44.91	39.01	48.24	71.24	57.08	31.64	52.05
1853....	29.72	33.17	39.92	46.73	58.63	69.00	73.52	74.22	67.66	52.86	46.91	33.53	48.43	72.25	55.81	32.14	52.16
1854....	31.49	30.95	37.70	45.57	59.37	68.69	77.17	74.67	67.06	56.15	43.90	28.31	47.55	73.51	55.70	30.25	51.75
Mean 12 y'rs	31.67	30.93	38.05	44.29	57.86	67.83	73.23	72.98	66.57	55.24	45.55	34.28	46.73	71.35	55.79	32.29	51.54

WEST POINT, NEW YORK.

Latitude 41° 23′, *Longitude* 74° 00′. *Altitude* 167 *feet.*

1824....	32.08	29.71	36.91	51.70	61.06	68.95	77.34*	75.36*	64.11	59.22*	42.29*	39.27*	49.89	73.88	55.21	33.69	53.17
1825....	31.55*	31.97*	44.73*	47.61*	59.34*	......	......	......	......	58.11	44.34	33.76	50.56	......	......	32.43	......
1826....	29.61	32.25	39.11	46.41	68.17	71.90	75.11	73.74	67.00	56.06	43.93	32.02	51.23	73.58	55.66	31.29	52.94
1827....	23.31	31.87	40.58	54.66	61.94	69.30	72.98	72.90	65.48	54.45	37.90	34.95	52.39	71.73	52.61	30.04	51.69
1828....	33.42	39.39	41.77	47.72	61.76	73.85	75.41	76.58	68.64	55.99	45.03	39.97	50.42	75.28	56.55	37.59	54.96
1829....	27.10	22.83	34.80	49.72	64.31	69.66	72.50	71.34	60.61	53.16	41.71	40.15	49.61	71.17	51.83	30.03	50.66
1830....	28.05	27.01	40.07	54.19	59.62	69.13	75.69	75.35	66.73	48.82	49.91	37.33	51.29	73.39	55.15	34.13	53.49
1831....	24.41	23.98	42.50	51.84	62.63	74.85	73.77	74.39	65.82	56.87	44.73	26.17	52.32	74.34	55.81	24.85	51.83
1832....	30.19	30.63	40.33	48.24	58.85	66.24	71.70	70.83	62.81	55.48	45.45	34.50	49.14	69.59	54.58	31.77	51.24
1833....	33.12	27.96	35.32	54.47	63.07	66.92	72.50	71.40	66.84	53.45	40.94	33.80	50.95	70.27	53.74	31.63	51.65
1834....	26.33	35.87	39.60	51.24	59.05	67.44	76.82	73.92	65.41	51.62	40.82	30.31	49.96	72.76	52.62	30.84	51.54
1835....	26.83	25.40	36.40	46.73	59.70	67.92	74.27	71.24	61.00	59.00	43.21	25.91	47.61	71.14	54.40	26.05	49.80
1836....	27.17	20.69	32.23	45.69	60.94	65.56	73.41	67.55	64.85	47.35	39.23	29.19	46.29	68.84	50.48	25.68	47.82
1837....	21.78	27.54	32.61	45.45	56.61	67.16	71.60	69.79	61.76	51.31	42.13	31.23	44.89	69.52	51.73	26.85	48.25
1838....	34.68	21.98	38.62	42.55	56.90	71.92	77.81	74.57	67.07	54.27	40.43	29.05	46.02	74.77	53.92	28.57	50.82
1839....	28.41	32.59	40.76	53.80	60.80	65.43	73.68	68.09	64.30	56.37	39.68	32.92	51.79	69.07	53.45	31.31	51.40
1840....	23.12	36.71	41.13	50.83	60.43	67.30	74.16	73.82	63.30	53.61	43.53	29.13	50.80	71.76	53.48	29.65	51.42
1841....	29.69	26.01	36.16	45.84	57.33	71.90	73.90	72.38	67.25	45.99	39.02	35.24	46.44	72.73	50.75	30.31	50.06
1842....	35.17	39.55	46.65	54.25	59.19	67.10	74.76	70.52	63.82	57.04	43.20	31.31	53.36	70.79	54.69	35.34	53.54
1843....	33.40	21.40	26.77	47.20	59.00	71.00	74.96	71.79	66.46	48.81	36.41	30.23	44.32	72.58	50.56	28.34	48.95
1844....	19.10	26.03	36.00	53.04	61.69	67.42	71.37	68.99	62.40	49.81	39.27	30.06	50.24	69.26	50.49	25.06	48.76
1845....	28.53	28.20	39.62	48.06	57.79	69.06	74.36	74.18	61.79	52.60	43.32	24.12	48.49	72.53	52.57	26.95	50.13
1846....	27.48	23.65	37.33	50.00	60.25	67.32	72.25	72.55	69.07	51.26	45.26	30.74	49.19	70.71	55.19	27.29	50.59
1847....	28.90	28.20	32.45	45.19	58.38	64.83	75.35	73.03	63.36	50.48	44.45	35.77	45.34	71.07	53.10	30.96	50.12
1848....	32.40	28.74	34.36	48.52	60.78	68.46	71.15	71.52	61.48	51.17	37.41	36.20	47.89	70.38	50.02	32.78	50.27
1849....	23.98	21.85	37.34	46.22	55.35	67.47	71.90	69.63	61.85	50.46	47.60	31.45	46.30	69.67	53.30	25.76	48.76

* Extreme hours in excess, or thermometer protected. "Thermometer removed from a large to a small building" in June, 1825. The apparent defects of position in the first two years of the record do not sensibly affect the mean results.

WEST POINT, NEW YORK—Continued.

Latitude 41° 23′, *Longitude* 74° 00′. *Altitude* 167 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1850....	30.75	32.75	35.46	44.62	53.49	63.49	73.03	68.69	61.67	51.91	42.87	29.37	44.52	68.40	52.15	30.96	49.01
1851....	29.45	32.26	38.64	46.85	57.13	65.51	71.62	68.65	63.74	53.89	38.48	25.00	47.54	68.59	52.03	28.90	49.27
1852....	21.57	28.69	33.36	42.49	58.40	68.30	72.90	67.75	61.78	53.56	39.98	36.46	44.75	69.65	51.77	28.91	48.77
1853....	26.28	29.70	38.60	48.83	59.88	69.14	70.80	71.39	64.76	50.59	44.38	30.44	49.10	70.44	53.24	28.81	50.40
1854....	28.00	27.40	36.35	45.91	60.57	68.06	75.59	72.75	64.25	53.69	42.39	25.50	47.61	72.13	53.44	26.97	50.04
Mean 31 y'rs	28.28	28.80	37.63	48.70	59.82	68.41	73.75	71.83	64.31	53.04	42.23	31.98	48.72	71.33	53.19	29.69	50.73

WATERVLIET ARSENAL, NEW YORK.

Latitude 42° 43′, *Longitude* 73° 43′. *Altitude* 50 ? *feet.*

1824....	25.87	25.47	32.47	48.43	59.04	68.02	73.61	71.24	66.00	54.01	40.56	34.34	46.65	70.96	53.52	28.56	49.92
1825....	26.58	29.06	39.96	49.91	62.11	70.22	78.67	73.34	60.99	53.01	36.80	30.02	50.66	74.07	50.27	28.55	50.89
1826....	27.46	27.71	36.87	44.71	67.23	70.83	73.10	73.16	65.03	51.96	41.37	29.33	49.60	72.36	52.79	28.17	50.73
1827....	17.11	26.64	33.40	50.62	59.78	70.95	74.54	71.04	64.11	50.71	33.14	27.01	47.93	72.18	49.32	23.59	48.26
1828....	28.43	31.92	38.55	43.33	62.82	73.16	74.89	75.77	64.63	52.62	41.88	32.18	48.23	74.61	53.04	30.84	51.68
1829....	21.63	15.56	29.88	44.25	65.38	70.20	72.93	72.48	58.67	51.97	39.70	36.06	46.50	71.87	50.11	27.42	48.97
1830 ...	22.57	21.03	39.20	51.60	57.13	67.58	76.34	72.76	61.40	48.82	45.08	33.50	49.31	72.29	51.77	25.70	49.77
1831....	20.82	19.25	39.04	49.10	60.01	74.69	73.73	71.36	62.40	53.55	40.93	14.03	49.38	73.26	52.29	18.03	48.24
1832....	22.10	22.86	34.97	44.61	54.49	68.87	71.06	68.73	61.44	49.94	38.75	29.03	44.69	69.55	50.04	24.66	47.23
1833....	......	......	......	44.97	55.97	60.77	73.77	69.32	62.65	48.08	35.75	28.78	......	67.96	48.83	......	......
1834....	20.59	32.84	34.98	49.95	57.30	68.00	77.66	73.24	64.51	46.15	38.45	24.43	47.41	72.97	49.70	25.95	49.01
1835....	19.60	20.25	31.85	43.99	58.84	67.90	72.26	68.83	59.34	52.58	37.35	19.36	44.93	69.66	49.76	19.74	46.02
1836...	21.94	14.01	26.80	42.29	58.91	66.38	72.46	65.06	61.83	41.95	35.32	24.93	42.67	67.97	46.37	20.29	44.32
1837....	15.18	23.03	29.07	42.58	54.99	66.44	70.37	69.03	58.67	49.11	41.36	26.84	42.21	68.61	49.71	21.68	45.55
1838....	28.71	14.66	34.84	37.19	57.49	70.91	75.90	72.15	62.95	48.53	36.67	21.12	43.17	72.99	49.38	21.50	46.78
1839 ...	21.92	25.42	31.92	49.34	58.24	63.49	73.42	70.40	62.44	51.62	36.37	28.81	46.50	69.10	50.14	25.38	47.78
1840....	15.01	31.20	35.51	49.89	61.26	66.46	73.67	71.10	59.43	50.30	38.15	26.85	48.89	70.41	49.29	24.35	48.23
1841....	28.22	22.53	32.39	41.22	56.82	70.18	72.51	71.90	67.34	45.54	38.40	29.55	43.48	71.53	50.43	26.77	48.05
1842....	30.31	36.28	41.99	53.14	57.89	66.43	72.69	69.69	58.10	46.38	34.70	23.22	51.01	69.60	46.39	29.94	49.23
1843....	29.00	15.30	25.19	42.70	59.42	66.15	72.90	71.60	66.15	46.43	38.56	31.20	42.44	70.22	50.38	25.17	47.05
1844....	14.15	24.03	35.29	53.44	60.72	65.13	68.17	71.87	61.82	46.71	35.31	30.52	49.82	68.39	47.95	22.90	47.26
1845....	25.78	26.84	40.65	48.34	55.86	69.31	74.51	72.47	55.61	48.86	39.80	17.18	48.28	72.10	48.09	23.27	47.93
1846....	16.98	17.39	29.85	47.07	60.15	67.50	71.87	71.98	66.78	47.89	42.45	25.43	45.69	70.45	52.37	19.93	47.11
1847....	25.98	21.72	28.52	42.83	59.29	66.90	73.95	71.44	62.36	47.10	44.03	32.30	43.55	70.76	51.16	26.67	48.03
1848....	30.06	23.48	31.77	47.51	62.00	69.92	71.88	71.89	55.36	48.97	39.43	33.66	47.09	71.23	47.92	29.07	48.83
1849....	19.81	16.48	36.14	42.36	54.28	68.12	73.58	69.14	60.49	47.56	43.14	25.54	44.26	70.28	50.40	20.61	46.39
1850....	22.52	25.33	30.29	40.94	53.44	68.22	76.13	67.64	59.20	48.05	39.03	21.40	41.56	70.66	48.76	23.08	46.01
1851....	22.03	27.84	37.35	45.66	57.94	66.67	72.14	68.60	61.83	52.16	36.00	22.01	46.98	69.13	50.00	23.96	47.52
1852....	16.67	25.77	32.63	44.42	60.69	68.68	75.44	71.54	70.40	56.60	39.75	37.62	45.91	71.89	55.58	26.69	50.02
1853....	30.14	30.86	37.78	42.88	55.29	69.55	70.74	70.39	61.38	45.46	39.02	25.67	45.32	70.23	48.62	28.89	48.26
1854....	21.86	19.54	31.55	41.27	54.89	67.10	77.17	69.77	61.44	48.18	38.67	19.38	42.90	71.35	49.43	20.26	45.99
Mean 31 y'rs	22.97	23.81	34.02	45.84	58.70	68.22	73.61	70.93	62.09	50.67	38.90	27.14	46.19	70.92	50.55	24.64	*48.07

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* Mean of 22 years at the Albany Academy, New York University system, 48.30 degrees.

PLATTSBURG BARRACKS, NEW YORK.

Latitude 44° 41′, *Longitude* 73° 25′. *Altitude* 186 *feet.*

	Jan.*	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1839....	16.72	22.43	31.25	45.13	57.97	66.28	72.04	68.75	59.93	48.12	32.88	24.94	44.78	69.02	46.98	21.36	45.53
1840....	12.62	26.37	29.33	44.21	60.67	67.17	72.11	69 39	58.13	46.47	32.45	19.41	44.73	69.56	45.08	19.46	44.85
1841....	23.98	......	......	......	......	......	67.52	67.45	60.37	42.77	33.10	25.37	......	......	45.41	......	......
1842....	20.70	25.31	33.75	42.90	50.92	60.13	67.61	68.92	56.81	45.53	33.86	19.25	42.52	65.55	45.40	21.75	43.80
1843....	26.45	13.78	25.95	43.75	57.30	65.41	69.16	71.22	64.78	46.53	36.25	28.79	42.33	68.60	49.19	23.01	45.78
1844....	10.33	19.68	30.29	47.74	55.04	61.01	66.30	64.90	58.57	42.89	29.19	18.95	44.36	64.07	43.55	16.32	42.07
1845....	18.68	19.50	30.85	39.87	51.41	63.81	67.42	68.15	54.65	48.17	37.15	16.02	40.70	66.46	46.66	18.07	42.97
1846....	18.70	12.82	31.05	44.02	54.72	61.52	......	......	......	......	......	......	43.26	......	......	......	......
1849....	......	......	......	......	......	......	70.00	68.48	57.57	46.03	41.94	22.10	......	......	48.51	......	......
1850....	21.45	24.46	28.80	37.94	49.64	65.39	68.97	64.96	58.88	46.86	38.95	19.32	38.46	66.44	48.23	21.74	43.72
1851....	18.62	24.20	30.28	42.08	52.91	61.65	66.96	66.37	59.39	51.57	30.49	19.07	41.75	64.99	47.15	20.63	43.63
1852....	13.90	21.05	27.22	38.66	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 11 y'rs	18.37	20.96	29.88	42.63	54.51	63.60	68.81	67.86	58.91	46.49	34.62	21.32	42.34	66.76	46.67	20.22	44.00

NOTE.—The first three months of 1839 were observed at *Rouse's Point.*

Mean temperature at Vermont University, Burlington, for eleven years—1842 to 1852—44.74 degrees. Observations by Professor Thompson, Hist. Vermont, 1853.

MADISON BARRACKS, SACKETT'S HARBOR, NEW YORK.

Latitude 43° 57′, *Longitude* 76° 15′. *Altitude* 262 *feet.*

1824*...	28.41	27.56	31.77	45.15	52.13	63.26	69.17	67.42	62.93	49.77	36.84	33.07	43.02	66.62	49.85	29.68	47.31
1825....	25.51	30.46	36.23	......	......	......	72.69	71.91	62.57	55.27	41.42	29.34	......	......	53.09	28.44	......
1826....	27.92	30.90	35.58	41.30	61.65	69.60	72.26	73.02	62.80	53.58	39.31	25.69	46.18	71.63	51.90	28.17	49.47
1827 ...	14.29	20.56	30.73	42.96	53.34	63.11	69.03	64.25	......	......	......	......	42.34	65.46	......	......	......
1828....	25.77	29.28	35.05	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1829....	21.44	20.61	28.07	45.27	60.54	68.48	70.29	71.59	59.52	51.28	37.01	36.11	44.63	70.12	49.27	26.05	47.52
1830....	20.35	22.40	36.02	54.03	57.90	65.07	74.62	69.65	61.09	53.81	45.46	32.62	49.32	69.78	53.45	25.12	49.42
1831....	18.23	22.25	41.41	48.99	58.15	72.88	72.34	71.88	64.40	55.56	41.63	19.95	49.52	72.37	53.86	20.14	48.97
1832....	27.58	25.79	39.11	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1838....	......	......	......	......	......	......	......	......	......	47.28	32.92	23.94	......	......	......	......	......
1839....	......	......	......	49.08	55.74	60.12	70.87	68.46	59.43	51.95	37.21	27.73	......	66.48	49.53	......	......
1840....	15.45	30.73	33.50	......	......	......	70.85	71.69	58.76	47.51	36.85	23.12	......	......	47.71	23.10	......
1841†...	......	23.60	......	......	......	......	67.10	......	......	......	......	....	38.50	66.62	47.11	27.35	44.89
1842....	26.01	29.11	37.30	45.06	50.44	59.91	65.89	66.69	56.30	47.91	34.39	24.76	44.26	64.15	46.20	26.62	45.30
1843....	30.24	14.18	23.30	42.30	51.15	59.23	66.20	67.20	59.37	44.30	34.20	29.19	38.92	64.21	45.96	24.54	43.41
1844....	12.74	20.99	30.60	48.94	56.00	62.13	66.90	66.15	60.63	44.69	33.79	25.00	45.18	65.06	46.37	19.91	44.13
1845....	21.73	21.85	34.61	43.06	50.74	62.00	66.88	68.92	56.85	49.94	37.76	17.88	42.80	65.93	48.18	20.39	44.32
1846....	21.53	16.16	31.62	45.44	56.83	63.64	......	......	......	......	......	......	44.63	......	......	......	......
1849....	......	......	32.66	41.91	53.46	67.12	72.04	71.09	61.42	48.93	46.08	25.11	42.68	70.08	52.14	......	......
1850....	25.05	24.43	30.49	40.55	50.91	67.90	72.13	68.88	60.06	48.02	40.32	19.73	40.65	69.64	49.47	23.07	45.71
1851....	22.31	27.80	34.34	41.93	54.12	62.01	68.52	65.45	59.18	50.60	32.26	22.49	43.46	65.32	47.35	24.53	45.17
1852....	14.93	23.03	28.79	39.05	......	......	......	......	......	......	......	......	......	......	......	......	......
‡Mean 16 y'rs	22.19	24.30	33.22	44.69	54.87	64.43	69.86	69.02	60.35	50.02	37.65	25.98	44.26	67.77	49.34	24.16	46.38
Mean last 8 y'rs.	21.82	22.70	31.52	43.14	52.96	63.00	69.75	67.77	59.12	47.91	36.97	23.45	42.54	66.84	48.00	22.66	45.01

* Observations taken at 6, 2, and 7, in the second quarter, and apparently near these hours, through 1824, 1825 and 1826. They are generally incomplete to 1828, inclusive.

† The monthly records for 1841 are lost.

‡ Mean at Toronto, latitude 43° 39′ 06″, for 12 years, from 1841 to 1852, 44.23 degrees—corrected to absolute mean temperature, as for hourly observations, by Col. Sabine. The mean for the corresponding and carefully observed years of this series is very nearly accordant with that at Toronto.

FORT ONTARIO, NEW YORK.

Latitude 43° 20′, *Longitude* 76° 40′. *Altitude* 250 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1843....	30.84	17.97	24.27	42.76	51.25	59.06	66.09	68.50	61.50	45.10	34.30	30.50	39.43	64.55	46.97	26.44	44.35
1844....	17.40	24.95	33.35	49.65	57.57	61.72	68.57	65.82	61.07	45.00	35.85	27.60	46.86	65.37	47.31	23.32	45.71
1845....	25.66	25.77	36.46	43.09	49.74	61.83	67.44	69.06	58.50	49.89	39.55	22.04	43.10	66.11	49.31	24.49	45.78
1846....	24.70	21.36	31.17	45.02	56.52	64.18	......	......	......	......	......	......	44.24	......	......	......	......
1849....	20.29	19.45	34.04	41.98	51.20	66.01	73.50	70.97	61.00	45.77	44.25	26.90	42.41	70.16	50.34	22.21	46.28
1850....	27.27	27.06	31.36	40.18	47.79	65.96	70.29	69.58	60.85	48.40	41.28	23.68	39.78	68.61	50.18	26.00	46.14
1851....	25.69	29.74	34.71	42.12	52.06	61.67	68.82	66.69	63.07	50.89	34.54	23.37	42.96	65.72	49.50	26.27	46.11
1852....	19.07	24.98	30.67	37.49	53.26	62.46	69.60	67 59	59.26	50.24	35.20	32.07	40.47	66.55	48.23	25.37	45.15
1853....	24.87	24.73	31.92	41.31	49.00	66.44	69.12	......	......	......	......	......	40.74	......	......	......	......
1854....	......	......	......	......	......	......	......	......	......	48.37	38.78	23.57	......	......	......	......	......
Mean 9 y'rs	23.98	24.00	32.00	42.62	56.49	63.26	69.18	68.31	61.03	46.71	43.43	26.21	43.70	66.92	50.39	24.73	46.44

FORT NIAGARA, NEW YORK.

Latitude 43° 18′, *Longitude* 79° 08′. *Altitude* 250 *feet.*

1829....	27.78	21.65	32.72	45.46	59.45	69.27	70.76	71.54	60.78	55.51	38.89	39.62	45.88	70.52	51.72	29.68	49.42
1830....	25.94	28.76	36.06	49.59	60.09	68.52	......	......	......	......	......	......	48.58	......	......	......	......
1831....	25.63	25.55	42.23	45.02	57.65	71.92	73.57	71.67	62.50	55.76	41.72	24.19	48.30	72.38	53 33	25.12	49.78
1833....	......	......	......	51.17	62.12	66.34	72.72	73.35	66.99	......	......	......	......	70.80	......	......	......
1840....	22.18	31.69	34.84	44.01	56.89	60.44	70.20	70.72	59.08	49.94	39.98	28.26	48.27	67.14	49.66	27.37	48.11
1842....	30.53	30.20	38.54	45.10	52.49	59.08	68.34	67.77	60.78	51.51	35.75	28.70	45.37	65.66	49.34	29.81	47.54
1843....	31.80	20.08	25.74	41.75	50.64	61.31	68.70	69.38	63.70	45.95	34.48	32.14	39.38	66.46	48.04	28.01	45.47
1844....	22.17	28.70	33.78	48.28	57.24	61.66	67.20	65.30	61.35	45.84	38.40	31.74	46.43	64.72	48.53	27.54	46.80
1845....	29.02	29.17	38.83	44.55	55.00	65.01	70.58	70.32	60.73	50.67	39.45	24.33	46.13	68.64	50.28	27.51	48.14
1846*...	28.75	24.57	35.20	44.41	55.07	62.83	......	......	......	......	......	......	44.89	......	......	......	......
1849....	......	......	......	......	......	......	69.84	68.27	61.45	50.03	47.51	29.44	......	......	52.99	......	......
1850....	29.77	28.51	32.47	39.98	52.39	67.65	72.19	69.29	59.32	49.43	43.26	27.59	41.61	69.71	50.67	28.62	47.65
1851....	28.69	30.36	35.52	41.79	53.59	63.58	68.67	66.93	61.58	51.66	36.55	27.02	50.85	69.25	50.89	32.38	50.84
1852....	21.68	26.97	30.57	38.53	53.18	63.10	69.37	69.17	60.73	51.91	37.04	34.54	40.76	67.21	49.89	27.73	46.39
1853....	27.35	27.64	34.00	42.54	55.88	69.17	69.92	72.90	62.84	47.53	41.30	28.37	44.14	71.00	50.56	27.79	48.37
1854....	25.04	23.23	32.37	41.41	54.98	67.58	72.84	69.62	64.02	......	......	......	42.92	70.01	......	......	......
Mean 14 y'rs	26.85	26.93	34.49	44.24	55.77	65.16	70.35	69.73	61.77	50.48	39.53	29.66	44.83	68.41	50.59	27.81	47.91

* The record was evidently from a thermometer in a building or protected position for most of the period. Some of the early years were quite inaccurate, and portions of these have been omitted.

BUFFALO BARRACKS, NEW YORK.

Latitude 42° 53′, *Longitude* 78° 58′. *Altitude* 660 *feet.*

1841....	25.24	21.26	26.97	35.85	48.81	65.31	63.23	67.83	64.30	44.21	37.35	30.83	37.21	65.45	48.62	25.77	44.26
1842....	29.98	29.45	38.58	45.41	55.12	61.90	68.67	68.44	59.24	48.86	35.10	26.46	46.37	66.33	47.73	28.63	47.26
1843....	30.80	18.17	19.20	43.30	52.10	63.04	69.20	71.15	63.19	45.12	34.10	32.80	38.20	67.80	47.47	27.26	45.18
1844....	22.40	27.38	33.19	50.88	56.48	65.30	69.33	66.72	61.34	45.46	36.78	30.09	46.85	67.12	47.86	26.62	47.11
1845....	28.07	28.36	37.23	45.56	52.21	64.75	70.61	......	......	......	......	......	45 00	......	......	......	......
Mean 4½ y'rs	27.30	24.92	31.05	44.20	52.95	64.06	68.21	68.53	62.02	45.91	35.83	30.04	42.73	66.93	47.92	27.42	46.25

ALLEGHANY ARSENAL, PITTSBURG, PENNSYLVANIA.

Latitude 40° 32′, *Longitude* 80° 02′. *Altitude* 704 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1825....	31.15	37.49	45.15	50.40	64.06	71.80	76.04	74.05	63.09	54.50	39.41	30.85	53.20	73.96	52.30	33.16	53.15
1826....	28.13	33.97	43.69	......	......	......	74.24	72.67	66.48	56.79	43.93	34.70	......	......	55.73	32.27	......
1827....	26.08	39.54	48.40	57.24	62.33	69.08	74.49	74.16	65.93	54.54	42.69	41.83	55.99	72.91	54.39	35.82	54.78
1836....	28.75	20.13	31.55	54.09	74.60	73.02	74.72	68.49	62.24	38.15	30.84	22.40	53.08	72.08	43.74	23.76	48.16
1837....	16.79	25.65	27.74	31.26	59.69	70.33	74.44	72.00	57.43	52.30	42.94	32.31	39.56	72.26	50.89	24.92	46.91
1838....	33.22	18.49	41.55	44.95	53.96	71.68	77.79	74.57	66.05	55.47	40.23	22.28	46.82	74.68	50.58	24.66	49.18
1839....	30.68	32.55	37.09	54.82	60.97	65.28	72.92	69.80	63.48	57.99	35.99	30.32	50.96	69.37	52.49	31.18	51.00
1840....	21.79	39.12	40.25	53.13	61.73	69.59	71.15	69.50	59.64	52.05	39.45	29.39	51.70	70.08	50.38	30.10	50.56
1841....	29.95	29.56	38.24	47.50	57.51	70.86	63.26	68.15	66.12	46.50	41.14	30.53	48.08	67.42	51.25	30.01	49.19
1842....	33.99	36.06	46.76	54.41	56.43	65.41	69.90	68.10	64.36	49.75	35.55	31.01	52.53	67.80	49.89	33.69	50.98
1843....	35.77	23.84	26.05	48.01	57.64	68.10	72.38	71.25	66.84	46.08	37.41	33.59	43.90	70.58	50.11	31.73	49.08
1844....	25.48	31.35	40.75	59.52	62.52	68.17	73.12	68.97	62.19	47.15	38.59	31.88	54.26	70.09	49.31	29.57	50.81
1845....	33.53	31.36	39.49	53.59	58.34	69.12	70.60	72.41	62.10	47.38	38.07	23.10	50.47	70.71	49.18	29.33	49.92
1846....	29.27	27.74	40.09	54.28	65.42	68.92	73.27	74.12	68.50	51.50	45.30	35.70	53.26	72.10	55.10	30.80	52.81
1847....	29.92	32.62	37.27	50.31	62.36	66.97	72.48	68.67	62.03	49.41	42.12	33.10	49.98	69.37	51.18	31.88	50.60
1848....	33.63	31.49	36.37	48.75	64.28	68.37	70.97	70.91	58.14	50.16	36.60	40.18	49.80	70.08	48.30	35.10	50.82
1849....	28.28	28.08	41.05	47.84	60.35	70.93	71.50	69.79	60.15	50.22	44.82	30.22	46.21	70.74	51.73	28.86	49.43
1850....	33.63	31.87	35.50	46.06	53.97	68.48	76.10	72.28	62 51	49.33	42.08	32.68	45.18	72.29	51.31	32.73	50.38
1851....	32.47	37.67	42.48	48.75	61.32	66.41	72.19	69.15	64.48	51.66	36.55	27.02	50.85	69.25	50.89	32.38	50.84
1852....	23.62	31.37	40.20	44.46	59.82	66.23	73.71	69.38	62.08	57.22	39.65	36.62	48.16	69.77	52.98	30.54	50.36
1853....	29.31	32.08	38.50	50.42	60.90	73.72	72.21	71.88	65.02	48.46	44.38	29.38	49.94	72.60	52.95	30.26	51.44
1854....	29.08	33.49	40.36	49.30	61.17	71.15	78.18	76.38	69.92	53.32	37.92	30.53	50.28	75.24	53.72	31.03	52.57
Mean 22 y'rs	29.25	31.16	39.02	49.96	60.92	69.22	72.98	71.21	63.58	50.91	39.80	31.35	49.97	71.47	51.43	30.59	50.86

CARLISLE BARRACKS, PENNSYLVANIA.

Latitude 40° 12′, *Longitude* 77° 14′. *Altitude* 500 *feet.*

1839....	......	......	......	......	......	......	77.17	72.76	67.08	56.30	34.90	29.33	......	......	52.76	......	......
1840....	20.44	35.64	42.50	52.52	60.36	67.69	72.88	71.64	58.60	50.66	38.99	26.82	51.79	70.74	49.41	27.63	49.89
1841....	29.15	25.52	33.62	46.31	59.53	71.48	70.64	70.76	64.86	45.51	39.33	30.60	46.49	70.96	49.90	28.42	48.94
1842....	31.43	33.37	45.24	51.29	54.32	67.23	72.17	68.83	62.60	48.56	34.13	29.09	50.28	69.41	48.43	31.28	49.85
1843....	33.74	23.90	26.88	50.80	60.15	68.85	72.70	72.05	67.90	49.80	37.50	31.65	45.94	71.20	51.73	29.76	49.66
1844....	25.07	31.26	41.00	59.06	65.88	70.09	77.01	73.10	66.65	54.36	41.61	32.93	55.31	73.40	54.21	29.75	53.17
1845....	35.80	32.86	43.56	54.11	62.42	75.95	80.35	78.91	71.50	57.16	46.80	28.35	53.36	78.40	58.49	32.34	55.65
1846....	34.58	32.48	39.90	51.42	......	......	......	......	......	......	......	......	......	......	......	......	......
1848....	31.50	30.80	35.81	51.41	64.75	72.46	71.27	68.81	58.59	52.10	35.34	38.25	50.66	70.85	48.68	33.52	50.93
1849....	24.93	24.92	40.60	48.90	58.01	71.92	73.18	72.32	62.56	51.19	46.37	29.81	49.17	72.47	53.37	26.55	50.39
1850....	30.13	32.40	36.85	46.46	56.48	71.15	75.79	71.58	62.14	50.20	41.48	32.05	46.60	72.84	51.27	31.53	50.56
1851...	31.38	36.85	41.47	47.61	60.72	67.33	71.90	69.30	63.83	52.13	36.95	......	49 93	69.81	50.97	.....	......
1852....	23.00	30.19	37.09	44.25	61.73	68.31	74.16	63.62	61.31	55.63	38.55	36.30	47.69	70.36	51.83	29.83	49.93
1853....	28.94	32.21	38.62	48.18	60.54	73.00	73.78	72.61	65.72	......	......	......	49.11	73.13	......	......	......
1854....	......	... ..	......	......	......	......	......	73.61	68.66	55.29	41.60	28.70	......	......	55.18	......	.....
Mean 13 y'rs	29.24	30.95	38.78	50.10	60.41	70.45	74.08	71.92	64.43	52.22	39.50	31.16	49.76	72.15	52.05	30.45	51.10

FORT MIFFLIN, PENNSYLVANIA.

Latitude 39° 53′, *Longitude* 75° 13′. *Altitude* 20 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1823....	31.95	26.61	39.11	55.77	63.84	75.22	82.19	78.81	73.27	58.27	42.46	35.11	52.91	78.74	58.00	31.22	55.22
1824....	35.13	32.73	38.27	48.55	63.09	75.24	80.96	75.18	73.44	56.12	46.33	39.22	49.97	77.13	58.63	35.69	55.35
1843....	39.01	27.78	30.45	50.36	59.22	70.43	73.70	74.82	69.16	51.28	40.56	34.42	46.68	72.98	53.67	33.74	51.77
1844....	28.28	32.03	42.54	54.51	65.79	69.98	74.53	72.55	65.82	52.41	42.59	33.55	54.28	72.35	53.51	31.29	52.86
1845....	36.43	33.56	44.79	52.98	60.84	71.76	76.58	75.41	66.67	53.95	44.57	28.59	52.93	74.58	55.06	32.86	53.86
1846....	32.22	28.75	41.75	52.46	......	......	......	......	......	......	......	......	......	......	......	......	......
1849....	29.67	28.38	42.24	49.90	57.74	72.56	73.35	73.86	66.54	55.28	51.86	33.76	49.95	73.26	57.89	30.60	52.92
1850....	35.25	37.72	40.06	47.50	57.82	71.46	77.18	73.35	68.05	56.06	......	36.30	48.46	74.00	......	36.42	......
1851....	33.17	37.00	41.84	50.66	61.77	69.49	76.25	73.49	69.40	61.05	53.27	34.90	51.42	73.07	61.24?	35.02	55.19
1852....	33.16	35.01	40.77	44.00	63.34	69.64	79.97	72.27	67.58	58.80	42.40	39.75	49.37	73.96	56.26	35.97	53.89
1853....	31.06	34.76	41.28	50.49	62.09	73.70	74.43	74.37	67.06	54.86	......	......	51.29	74.17	......	......	......
Mean 10 y'rs	33.21	32.21	40.30	50.65	61.55	71.95	76.91	74.41	68.70	55.81	45.50	35.07	50.83	74.42	56.67	33.50	53.85

FORT DELAWARE, DELAWARE.

Latitude 39° 35′, *Longitude* 75° 34′. *Altitude* 10 *feet.*

1825....	......	36.57	43.09	53.04	65.14	74.31	80.47	75.35	68.05	61.47	46.47	35.42	53.76	76.71	58.66	......	......
1826 ...	35.15	37.09	39.50	45.77	69.46	76.56	77.72	76.03	76.59	57.68	50.64	38.35	51.58	76.77	61.64	36.86	56.71
1827 ...	29.92	40.44	47.28	58.70	62.38	70.64	77.05	*71.54	79.26	59.47	......	43.41	56.12	76.08	......	37.92	......
1828....	42.38	46.40	49.02	50.89	67.18	79.11	79.29	79.48	68.65	55.37	47.60	42.01	55.70	79.29	57.21	43.60	58.95
1829....	31.56	26.92	37.07	52.82	65.17	71.80	73.98	74.98	64.36	55.51	42.61	40.10	51.69	73.59	54.16	32.86	53.07
1830....	31.94	28.90	41.76	54.17	63.33	70.19	79.42	78.51	68.62	58.42	45.62	36.67	53.09	76.04	57.55	32.84	54.88
1854....	32.38	34.56	43.18	50.98	64.50	......	......	......	......	......	......	......	52.89	......	......	......	......
Mean 6½ y'rs	33.67	35.84	42.99	52.34	65.31	73 77	77.99	75.98	70.92	57.99	46.59	39.33	53.55	75.91	58.50	36.28	56.06

*August, 1827, observed at Cape May.

FORT McHENRY, MARYLAND.

Latitude 39° 17′, *Longitude* 71° 35′. *Altitude* 36 *feet.*

1831....	28.66	30.78	47.33	56.49	64.34	74.75	75.51	75.88	67.07	59.78	43.72	25.36	56.05	75.38	56.86	28.27	54.14
1832....	31.81	37.46	44.50	52.66	62.76	71.75	76.52	75.69	71.60	59.84	46.78	38.97	53.31	74.65	59.41	36.08	55.86
1833....	37.06	37.40	40.79	56.64	70.12	72.71	77.71	74.12	69.27	54.69	44.26	38.49	55.85	74.85	56.07	37.65	56.10
1834....	29.71	44.49	47.15	55.27	61.07	72.00	80.41	77.26	66.78	52.97	44.63	36.52	54.50	76.56	54.80	36.91	55.69
1835....	31.82	29.09	41.01	49.03	63.97	71.18	75.53	72.46	61.81	58.39	48.43	33.31	51.34	73.06	56.21	31.41	53.00
1836....	33.77	26.06	32.80	51.52	63.43	66.77	74.76	69.97	68.52	48.21	41.61	41.61	49.25	70.50	52.78	33.81	51.58
1837....	28.77	34.08	40.83	49.08	62.26	69.92	74.72	73.78	64.49	56.33	46.66	36.28	50.72	72.81	55.83	33.04	53.10
1838....	37.34	26.79	42.59	48.35	59.29	74.46	80.55	77.38	67.58	51.32	40.68	31.08	50.08	77.46	53.19	31.74	53.12
1839....	32.41	34.66	43.30	56.41	66.25	70.00	77.10	72.94	67.10	60.10	40.22	34.27	55.32	73.35	55.81	33.78	54.56
1840....	24.20	38.68	45.26	54.25	61.51	71.16	73.77	74.47	63.49	55.72	43.69	29.88	53.67	72.80	54.30	30.92	52.92
1841....	30.45	31.81	40.36	47.43	55.72	69.63	76.42	74.07	70.64	49.28	42.07	35.06	47.84	73.37	54.00	32.44	51.91
1842....	36.42	38.14	47.97	54.19	59.63	68.98	75.39	73.42	68.08	54.43	38.93	32.68	53.93	72.60	53.81	35.75	54.02
1843....	38.39	28.13	30.14	50.28	60.97	72.61	75.73	76.36	71.15	54.36	41.96	35.18	47.13	74.90	55.82	33.90	52.94
1844....	29.22	32.10	41.93	55.88	66.46	69.34	77.36	74.10	66.62	52.88	41.08	33.25	54.76	73.60	53.53	31.52	53.35

FORT McHENRY, MARYLAND—Continued.

Latitude 39° 17′, *Longitude* 71° 35′. *Altitude* 36 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1845....	36.85	34.09	44.13	54.55	60.55	71.77	76.07	......	......	......	......	......	53.08	......	......	......	......
1846....	32.29	29.64	42.02	52.98	64.81	68.09	74.30	74.16	69.98	54.32	47.31	34.79	53.27	71.85	57.20	32.24	53.64
1847....	30.71	32.52	38.00	55.74	64.19	69.99	77.62	75.27	68.33	55.79	49.21	37.94	52.64	74.29	57.78	33.72	54.61
1848....	37.51	36.17	40.73	56.91	67.86	74.91	75.26	76.24	65.23	57.61	42.23	43.91	55.17	75.47	55.02	39.20	56.21
1849....	31.89	30.94	44.44	52.05	61.19	75.17	76.17	75.47	67.92	57.07	53.57	37.10	52.56	75.60	59.52	33.31	55.25
1850....	38.18	39.78	42.75	50.59	61.20	74.67	78.55	73.96	67.88	58.23	51.36	40.37	51.51	75.73	59.16	39.44	56.46
1851....	37.30	39.54	47.05	54.73	64.84	71.39	78.33	73.64	69.37	58.86	46.63	32.67	55.54	74.45	58.28	36.50	56.19
1852....	28.01	35.86	42.95	47.95	63.18	70.12	74.85	76.00	65.86	58.26	42.97	40.48	51.36	73.66	55.69	34.78	53.87
1853....	32.27	36.74	42.75	53.19	64.33	74.53	76.01	75.15	69.83	54.14	48.66	36.62	53.42	75.23	57.54	35.21	55.35
1854....	33.61	36.47	44.40	49.00	64.29	72.00	78.32	75.45	71.29	58.11	50.55	33.76	52.56	75.26	59.98	34.61	55.60
Mean 24 y'rs	32.86	34.23	42.29	52.71	63.10	71.58	76.71	74.66	67.82	55.68	45.10	35.63	52.70	74.32	56.20	34.24	54.36

FORT SEVERN, MARYLAND.

Latitude 38° 58′, *Longitude* 76° 27′. *Altitude* 20 *feet.*

1822....	29.28	35.13	46.26	55.05	67.09	73.16	79.68	77.23	72.36	61.55	53.82	38.51	56.13	76.69	62.58	34.31	57.43
1831....	27.86	27.82	45.19	54.43	64.32	74.94	77.54	75.66	68.37	59.15	44.64	25.98	54.64	76.05	57.39	27.22	53.82
1832....	32.70	37.78	43.35	51.84	61.63	71.97	77.01	75.44	68.82	58.38	48.59	43.24	52.27	74.81	58.60	37.91	55.90
1833....	36.68	37.36	40.84	58.14	66.74	71.23	77.95	75.20	70.95	57.09	45.83	38.08	55.24	74.79	57.96	37.37	56.34
1834 ...	30.00	40.79	45.05	49.70	64.14	72.95	79.79	78.10	61.78	58.08	46.70	36.83	52.96	76.95	52.19	35.87	54.49
1843....	......	......	32.46	51.46	60.40	72.13	75.66	75.11	70.40	53.16	41.95	36.80	48.11	74.30	55.17	......	......
1844....	30.35	32.85	43.03	56.20	69.00	72.04	77.99	75.45	69.09	55.91	46.34	37.46	56.08	75.16	57.11	33.55	55.47
1845....	39.31	36.51	46.59	55.60	62.50	73.35	77.72	......	......	......	......	......	54.90	......	......	......	......
Mean 8 y'rs.	32.31	35.46	42.85	54.05	64.48	72.72	77.17	76.03	68.82	57.62	46.84	36.70	53.79	75.31	57.76	34.82	55 42

WASHINGTON CITY.*

Latitude 38° 53′ 39″, *Longitude* 77° 2′ 48″. (*National Observatory.*) *Altitude* 50 *to* 90 *feet.*

1823....	41.37	35.15	47.41	59.69	66.49	73.27	78.21	76.67	68.42	53.64	37.75	37.23	57.86	76.05	53.27	37.92	56.28
1824....	38.51	34.66	41.46	55.35	64.69	73.60	79.13	74.98	68.63	57.27	43.88	40.28	53.83	75.90	56.59	37.82	56.04
1825....	35.41	39.14	48.87	56.38	64.98	76.36	79.27	75.77	67.51	60.16	44.63	36.13	56.74	77.13	57.40	33.56	56.21
1826....	35.66	41.33	49.00	53.36	73.42	76.51	77.48	76.25	72.34	58.68	45.84	36.31	58.59	76.75	58.95	37.77	58.02
1827....	30.20	42.63	47.41	59.97	66.22	74.35	79.93	78.42	70.15	58.41	44.87	41.59	57.87	77.57	57.81	38.14	57.85
1828....	41.13	47.26	47.52	50.44	66.96	79.29	78.11	79.09	67.41	54.79	47.33	41.74	54.97	78.83	56.51	43.38	58.42
1829....	32.74	28.62	39.63	54.36	65.53	73.61	74.80	73.91	64.29	55.79	42.69	44.28	53.17	74.11	54.22	35.21	54.18
1830....	33.84	33.70	46.36	56.32	65.16	73.54	81.14	77.95	69.27	58.66	52.47	37.33	55.95	77.54	60.13	34.96	57.14
1831....	26.83	29.32	46.82	55.06	63.32	73.91	74.96	74.78	67.37	56.03	42.13	25.37	55.07	74.55	55.18	27.17	52.99
1832....	31.98	37.13	44.91	.....	......	......	.. ...	......	......	......	......	......	......	......	......	......	......
1833....	35.59	36.57	41.63	58.20	70.02	71.34	77.59	74.50	68.88	53.87	43.30	37.53	56.62	74.48	55.02	36.56	55.67
1834....	29.82	43.15	47.35	55.82	62.84	72.37	80.51	77.22	66.45	53.31	43.80	36.54	55.34	76.67	54.52	36.50	55.78
1835....	30.15	29.01	41.37	53.45	65.46	75.14	78.03	75.97	62.44	59.77	49.32	33.57	50.09	76.38	57.18	30.91	53.64
Mean 12 y'rs	34.09	36.74	45.36	55.70	66.26	74.44	78.26	76.29	67.76	56.70	44.83	37.32	55.77	76.33	56.43	36.05	56.14

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* Observations by Rev. Robert Little to July, 1827, and by Assistant Surgeon J. A. Brereton subsequently. The locality was in the first case near the centre of the city, and in the last near the War Department buildings.

FORT WASHINGTON, MARYLAND.

Latitude 38° 43′, *Longitude* 77° 06′. *Altitude* 60 *feet*.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1824....	42.67	38.40	45.34	56.53	65.96	75.06	79.63	76.11	68.32	59.25	47.50	43.00	55.94	76.93	58.36	41.36	58.15
1825....	37.44	40.47	50.12	58.90	66.87	78.23	81.46	78.72	69.79	63.56	47.34	39.13	58.63	79.47	60.23	39.01	59.33
1826....	38.41	43.53	51.20	54.70	74.00	77.83	78.61	77.79	73.32	61.66	49.83	40.24	59.97	78.08	61.60	40.73	62.34
1827....	31.19	46.12	51.40	62.72	66.22	74.35	......	......	... ..	60.19	46.85	41.33	60.11	......	......	39.55	......
1828....	42.64	48.00	49.00	52.09	69.37	......	......	......	......	59.98	49.65	33.34	56.82	......	......	41.33	......
1829....	33.70	28.33	41.05	57.86	70.28	76.22	77.44	77.41	67.90	58.24	45.08	46.26	56.43	77.02	57.07	36.09	56.65
1830....	35.21	36.05	49.38	60.69	69.40	77.28	83.60	79.08	70.75	62.14	53.94	38.43	59.82	79.99	62.28	36.56	59.66
1831....	......	31.33	50.65	59.43	69.25	79.48	79.45	77.72	71.23	61.74	45.97	26.16	59.78	78.88	62.98	......	......
1832....	......	......	......	56.68	67.10	76.54	81.11	77.26	69.88	59.10	50.86	39.89	......	78.30	59.61	......	......
1833....	38.57	38.71	43.53	62.00	73.41	76.24	82.57	78.42	73.59	56.47	47.07	38.24	59.64	79.07	59.04	38.50	58.40
1834....	31.29	45.59	44.45	55.75	64.88	79.20	83.03	79.77	71.41	56.52	43.17	37.94	55.02	78.73	57.03	38.24	57.25
1835....	31.81	28.89	42.98	......	......	......	78.23	73.20	62.94	59.73	49.83	34.56	......	......	57.17	31.75	......
1851....	......	......	......	......	66.04	72.20	78.48	74.61	68.08	58.02	43.09	31.17	......	75.09	56.40	......	......
1852....	29.31	37.09	45.31	50.14	67.30	73.22	78.63	72.43	67.38	60.64	43.76	42.14	54.25	74.76	57.26	36.18	55.61
1853....	34.00	39.18	44.71	55.29	65.85	76.64	77.57	78.01	69.88	......	......	......	55.28	77.41	......	......	......
Mean 15 y'rs	35.50	38.59	46.86	57.14	68.28	76.35	79.99	76.96	69.57	59.80	47.42	37.99	57.43	77.77	58.93	37.36	57.87

BELLONA ARSENAL, RICHMOND, VIRGINIA.

Latitude 37° 20′, *Longitude* 77° 25′. *Altitude* 120 *feet*.

1824....	41.44	34.09	42.10	50.26	57.48	79.03	76.47	76.76	......	63.00	48.74	41.64	49.95	77.42	......	39.06	......
1825....	35.54	40.21	56.51	......	......	......	80.28	79.85	72.52	......	48.34	38.09	......	......	......	37.95	......
1826....	40.37	46.97	53.83	......	......	......	......	......	......	61.06	49.74	40.34	......	......	......	42.56	......
1827....	......	......	......	63.45	66.18	73.58	79.89	79.53	70.32	59.04	54.33	49.49	......	77.67	61.23	......	......
1828....	43.25	52.45	50.79	55.73	73.23	81.09	79.60	80.29	71.95	59.66	52.88	44.93	59.92	80.33	61.50	46.88	62.16
1829....	35.66	40.65	45.10	58.83	66.96	74.92	76.92	75.80	67.42	58.75	46.14	46.68	56.96	75.88	57.44	41.00	57.82
1830....	39.21	39.50	51.55	59.50	67.18	76.16	81.38	78.72	69.10	59.72	53.66	42.44	59.08	78.75	60.83	40.38	59.76
1831....	31.59	34.97	54.10	......	.....	......	......	......	......	......	......	......	......	......	......	......	......
1832....	38.08	45.42	50.27	57.04	70.67	74.57	78.19	77.70	70.14	59.32	50.87	43.82	59.33	76.82	60.11	42.44	59.67
1833....	43.41	43.47	48.50	63.74	72.83	76.72	80.80	74.58	72.53	......	......	......	61.69	77.77	......	......	......
Mean 8 y'rs	38.73	41.97	50.30	58.36	63.50	76.58	79.19	77.90	70.57	60.08	50.59	43.43	57.39	77.89	60.41	41.38	59.27

FORT MONROE, VIRGINIA.

Latitude 37° 00′, *Longitude* 76° 18′. *Altitude* 8 *feet*.

1825....	46.17	47.96	55.89	59.80	69.85	75.30	75.97	77.88	72.75	67.23	55.52	44.05	61.85	76.38	65.17	46.06	62.36
1826....	43.55	48.23	54.87	56.63	71.57	78.02	79.98	79.33	76.51	63.11	50.23	42.89	61.02	79.11	63.28	44.89	62.07
1827....	36.58	45.84	51.08	61.85	63.47	71.39	79.18	80.21	71.52	62.79	49.71	50.86	58.80	76.93	61.34	44.43	60.37
1828....	49.71	53.51	52.77	58.53	70.27	79.09	79.58	80.51	71.31	63.29	56.98	47.57	60.52	79.73	63.86	50.26	63.59
1829....	41.47	36.07	43.66	56.85	66.59	74.40	78.03	78.90	71.00	64.59	51.50	50.77	55.70	77.11	62.36	42.77	59.48
1830...	42.84	40.62	50.95	51.37	67.25	75.97	81.46	78.55	73.23	65.11	59.05	47.00	56.52	78.66	65.80	43.49	61.12
1831....	36.00	37.84	50.26	57.46	64.11	76.54	79.04	78.19	74.06	61.27	48.30	28.97	57.28	77.92	61.21	34.27	57.67
1832....	33.65	40.32	42.92	49.65	59.54	66.74	72.36	72.60	67.66	57.75	48.85	42.13	50.70	70.57	58.09	38.70	54.51
1833....	39.39	38.70	41.06	53.67	66.37	69.56	75.85	76.03	73.23	63.63	50.31	43.28	53.70	73.81	62.39	40.46	57.59

FORT MONROE, VIRGINIA—Continued.

Latitude 37° 00′, *Longitude* 76° 18′. *Altitude* 8 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1834....	35.96	46.46	49.95	57.19	64.85	75.27	81.13	79.20	74.26	65.07	53.22	45.98	57.33	78.53	64.18	42.80	58.21
1835....	42.53	34.28	45.76	56.86	65.32	71.66	77.46	76.35	69.26	64.75	56.87	42.12	55.98	75.16	63.63	39.64	61.10
1836....	38.58	31.95	41.75	55.43	67.49	71.23	76.36	75.52	74.04	57.32	45.22	37.90	54.89	74.37	58.86	36.14	54 56
1837....	32.93	42.53	45 93	53.83	64.40	73.60	80.11	77.42	68.50	64.64	54.91	46.07	54.72	77.04	62.68	40.51	58.74
1838. ..	46.01	33.51	48.25	53.92	63.70	74.55	82.83	81.14	72.33	60.45	46.72	38.55	55.29	79.51	59.83	39.36	58.50
1839....	39.72	43.13	46.94	56.62	69.18	73.14	80.04	76.17	69.85	63.84	48.03	40.15	57.58	76.45	60.57	37.67	58.07
1840....	34.26	47.72	53.15	61.38	67.82	74.83	78.29	79.00	69.49	63.37	50.68	41.48	60.78	77.37	61.18	41.14	60.12
1841....	41.50	39.11	47.50	54.32	63.45	77.53	78.54	76.94	74.60	56.96	51.04	45.42	55.09	77.67	60.87	42.01	58.66
1842....	45.09	47.03	57.18	62.78	66.99	74.18	77.42	75.72	74.38	62.39	44.27	38.40	62.32	75.77	60.35	43.51	60.49
1843....	44.12	37.12	37.09	55.30	64.18	75.29	78.19	77.18	75.28	58.25	48.80	41.24	52.19	76.89	60.78	40.83	57.67
1844....	38.03	37.92	48.73	59.32	72.24	74.91	78.67	74.13	71.62	60.56	52.46	41.84	60.10	75.90	61.55	38.28	58.96
1845....	44.79	42.74	51.01	58.58	65.94	76.30	79.02	77.95	72.00	61.07	51.70	34.77	58.51	77.76	61.59	40.77	59.66
1846....	40.90	38.87	48.91	57.29	70.00	73.95	78.86	79.74	74.20	61.56	54.46	46.24	58.73	77.52	63.41	42.00	60.41
1847....	42.19	42.65	45.01	54.91	62.24	72.24	76.16	74.35	69.98	60.50	53.02	43.88	54.05	74.25	61.17	43.24	58.18
1848....	41.45	39.79	47.49	55.06	67.77	75.48	75.48	75.89	69.28	59.11	46.22	51.79	56.77	75.62	58.20	44.34	58.73
1849....	37.50	36.56	46.40	54.30	61.65	75.56	75.45	76.01	70.70	60.18	54.94	43.35	54.12	75.67	61.94	39.14	57.72
1850 ...	43.34	43.01	46.57	51.07	62.99	73.09	78.46	76.85	71.45	60.65	52.67	45.75	53.54	76.13	61.59	44.04	58.82
1851....	42.44	46.36	49.32	54.38	65.49	72.54	79.00	75.04	69.66	61.36	48.46	40.90	56.39	75.52	59.82	43.23	59.57
1852....	35.19	42.62	48.87	53.44	65.85	72.74	76.23	74.12	70.20	63.39	49.94	47.87	56.05	74.36	61.18	41.89	58.38
1853....	38.84	44.00	48.62	56.13	64.94	74.49	77.54	76.96	71.85	59.20	55.46	43.09	56.56	76.33	62.17	41.98	59.26
1854....	41.47	43.82	50.82	57.16	68.74	77.20	80.21	79.55	76.60	64.55	52.85	40.75	58.91	78.99	64.67	42.01	61.14
Mean 30 y'rs	36.54	41.67	48.29	56.17	66.14	74.22	78.23	77.25	72.03	61.60	51.41	43.13	56.87	76.57	61.68	40.45	58.89

FORT MACON, NORTH CAROLINA.

Latitude 34° 41′, *Longitude* 76° 40′. *Altitude* 20 *feet.*

1833....	......	......	......	......	......	......	......	......	......	65.20	54.29	47.09	......	......	......	......	......
1834....	41.16	51.99	55.37	63.95	70.94	82.57	81.63	79.72	76.53	66.34	57.42	51.50	63.42	81.31	66.76	48.22	64.93
1835....	44.55	41.09	50.78	58.71	66.70	77.63	78.66	78.10	71.06	65.97	61.10	46.03	58.40	78.14	66.04	43.89	61.62
1836....	46.00	39.33	46.34	57.42	67.69	74.04	......	......	......	......	......	......	57.15	......	......	......	......
1843....	51.07	44.50	43.05	57.87	67.50	75.95	80.05	80.14	79.32	62.60	53.22	47.33	56.14	78.71	65.05	47.63	61.88
1844....	43.06	43.53	51.91	62.00	71.60	74.12	78.85	77 51	71.66	61.97	......	......	61.84	76.83	......	......	......
Mean 5 y'rs.	45.17	44.09	49.49	60.00	68.89	76.87	79.80	78.87	74.64	64.42	56.51	48.00	59.46	78.51	65.19	45.75	62.23

FORT JOHNSTON, NORTH CAROLINA.

Latitude 34° 00′, *Longitude* 78° 05′. *Altitude* 20 *feet.*

1822....	50.32	52.97	60.43	66.73	74.68	78.74	81.39	80.59	76.12	70.79	66.69	54.95	67.28	80.24	71.20	52.75	67.87
1823....	52.14	46.55	58.71	67.29	74.19	76.92	80.83	79.91	75.89	65.91	55.56	54.30	66.73	79.22	65.79	51.00	65.68
1824....	55.34	50.69	58.42	63.97	71.90	77.97	82.93	80.50	75.19	68.87	60.40	57.34	64.76	80.47	68.15	54.46	66.96
1825....	51.82	54.34	61.96	62.11	73.38	79.98	81.07	80.19	75.00	68.85	57.03	48.47	65.82	80.41	66.96	51.54	66.18
1826....	47.47	56.38	63.08	66.29	74.34	81.28	81.61	80.76	79.39	71.14	60.98	54.07	67.90	81.22	70.50	52.64	68.07
1827....	45.41	58.77	59.63	......	......	......	......	......	......	65.70	57.46	59.24	......	......	......	54.47	......
1828....	58.13	61.59	62.00	63.64	74.17	80.47	79.66	81.33	74.17	67.26	61.28	59.25	66.60	80.49	67.57	59.66	68.53

FORT JOHNSTON, NORTH CAROLINA—Continued.

Latitude 34° 00′, *Longitude* 78° 05′. *Altitude* 20 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1829....	50.81	46.63	52.40	62.30	70.90	79.19	80.43	80.83	75.22	......	......	......	61.87	80.15	......	......	......
1830....	50.35	50.39	59.18	64.16	71.88	77.46	......	......	......	66.62	62.40	53.58	65.07	......	......	51.44	......
1831....	43.03	44.27	55.72	64.15	70.80	79.67	80.65	80.93	78.19	68.05	56.83	41.58	63.56	80.42	67.69	42.96	63.66
1832....	45.58	55.91	54.47	64.28	72.84	77.30	80.22	80.08	75.83	68.43	62.15	57.70	63.86	79.20	68.80	53.03	66.22
1833....	50.43	51.09	54.26	63.88	76.12	80.83	82.36	77.29	76.92	64.23	53.73	47.59	64.75	80.16	64.97	49.70	64.87
1834....	42.98	53.63	57.23	61.94	69.65	80.09	83.14	79.18	75.97	67.07	55.39	49.54	62.94	80.80	66.14	48.72	64.65
1835....	45.42	39.92	50.68	63.38	72.85	79.26	80.25	79.63	71.34	65.58	61.19	48.36	62.30	79.71	66.04	44.57	63.15
1836....	46.87	44.69	48.51	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1843....	52.00	47.00	46.50	61.50	70.50	76.50	82.50	82.00	80.00	64.00	58.00	49.12	59.50	80.33	67.33	49.37	64.13
1844....	43.57	45.69	54.34	64.64	76.90	77.77	82.46	79.18	75.33	63.61	59.77	48.50	65.29	79.80	66.24	45.92	64.31
1845....	50.94	48.99	56.55	66.44	70.74	79.30	82.76	......	......	......	......	......	64.58	......	......	......	......
Mean 18 y'rs	49.03	50.53	56.34	64.17	72.86	78.92	81.48	80.17	76.04	67.07	59.26	52.24	64.46	80.19	67.46	50.60	65.68

AUGUSTA ARSENAL, GEORGIA.

Latitude 33° 28′, *Longitude* 81° 53′. *Altitude* 600? *feet.*

1826....	48.57	56.21	65.87	68.09	77.46	79.26	83.30	81.22	78.03	68.24	56.25	47.65	70.47	81.26	67.51	50.81	67.51
1827....	44.57	61.26	59.30	67.93	70.92	76.98	82.88	81.44	75.10	66.66	57.63	57.16	66.05	80.43	66.46	54.33	66.82
1828....	54.41	57.66	59.47	64.28	76.57	83.37	81.66	81.61	72.13	71.40	56.74	54.44	66.77	82.21	66.76	55.50	67.81
1829....	46.97	40.27	49.92	59.40	69.18	78.36	78.58	78.30	72.21	61.77	50.45	54.18	59.50	78.41	61.48	47.14	61.63
1830....	48.61	50.39	58.30	69.19	72.41	81.45	84.40	83.14	73.85	61.12	60.71	49.04	66.63	83.00	65.26	49.35	66.06
1831....	40.98	45.57	58.72	65.69	69.54	77.24	80.41	77.74	74.06	65.12	53.90	37.23	64.65	78.50	64.36	41.26	62.19
1832....	45.42	55.81	54.92	64.25	72.94	77.57	81.72	79.63	73.58	64.15	56.28	49.41	64.04	79.64	64.67	50.21	64.64
1833....	54.07	57.04	57.69	65.21	77.07	84.39	84.27	80.41	76.80	60.61	51.31	44.72	66.66	83.02	62.91	51.94	66.13
1834....	44.24	62.03	50.82	63.70	72.03	82.86	85.25	83.24	74.65	63.85	52.97	49.23	62.18	83.78	63.82	51.83	65.40
1835....	45.92	39.60*	50.77	61.91	72.84	79.66	79.82	78.85	68.21	63.38	60.03	47.15	61.84	79.44	63.87	44.22	62.36
1836....	45.05	44.09	50.34	64.59	72.62	75.98	79.43	78.02	75.70	......	......	......	62.52	77.81	......	......	......
1837....	39.24	49.21	53.77	58.61	70.84	76.43	86.37?	81.71	72.89	......	......	......	61.07	81.50	......	......	......
1838....	......	......	......	64.65	66.98	79.22	84.93	83.01	74.60	56.79	47.66	40.35	......	82.39	59.68	......	......
1839....	44.65	46.16	55.10	65.90	70.58	79.32	79.71	78.90	72.47	66.09	47.91	38.67	63.86	79.31	62.16	43.16	62.05
1840....	43.43	54.17	58.21	64.80	68.00	75.41	75.99	75.25	66.34	63.94	50.47	43.84	63.67	75.55	60.25	47.15	61 65
1841†...	47.00	46.00	53.94	62.88	70.30	78.40	80.47	76.37	71.55	57.72	52.62	44.85	62.37	78.41	60.63	45.91	61.83
1842....	48 74	51.31	64.26	66.95	71.58	76.39	77.45	74.93	74.26	60.42	46.98	44.47	67.60	76.26	60.55	48.17	63.14
1843....	50.90	46.69	43.87	64.76	71.16	78.23	82.96	79.20	80.73	64.75	58.66	52.27	59.93	80.13	68.05	49.95	64.51
1844....	44.78	51.20	56.09	69.15	77.43	77.04	81.49	79.42	74.43	63.94	57.14	48.42	67.56	79.32	65.17	48.13	65.04
1845....	51.40	52.92	57.19	70.55	72.96	83.47	87.48	80.94	74.85	62.86	50.71	38.76	66.90	83.96	62.81	47.69	65.34
1846....	45.83	46.52	57.64	65.56	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 21 y'rs	46.73	50.70	55.80	65.15	72.17	79.05	81.92	79.66	72.82	63.49	53.80	46.77	64.37	80.21	63.37	48.07	64.01

* February 8, 1835, thermometer—4° at 5 a. m.

† First nine months of 1841 computed from observations at sunrise and 2 p. m.; remainder, 7, 2, and 9.

NOTE.—The very low mean temperature of December, 1831, will be observed in the series at each post.

FORT MOULTRIE, SOUTH CAROLINA.

Latitude 32° 45′, *Longitude* 79° 51′. *Altitude* 25 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1823...	48.56	43.06	57.09	65.36	75.12	75.97	81.17	79.83	76.43	66.26	56.80	50.96	65.86	78.99	66.50	47.53	64.72
1824....	52.90	49.43	60.92	64.57	74.72	79.76	82.81	80.10	75.95	68.39	58.33	54.66	66.74	80.89	67.56	52.33	64.88
1825....	50.29	52.82	61.39	62.62	72.88	79.35	82.09	83.57	77.38	70.87	......	......	65.63	81.67	......	......	......
1826....	......	......	......	69.32	73.80	81.09	81.99	81.59	81.02	72.04	62.78	54.13	......	81.56	71.95	......	......
1827....	44.93	59.93	62.45	69.11	73.67	77.25	83.33	80.76	76.73	......	......	......	68.41	80.45	......	......	......
1828*...	61.48	64.73	64.03	65.09	77.29	86.25	82.66	82.72	78.19	68.65	62.92	59.66	68.80	83.88	69.92	61.96	71.14
1829....	51.37	46.41	53.59	63.73	66.17	82.80	84.09	84.29	77.80	......	......	......	61.16	83.73	......	......	......
1830....	55.79	54.48	63.24	67.32	74.87	79.45	83.21	82.45	81.49	74.25	68.77	56.55	68.48	81.70	74.84	55.61	70.16
1831....	45.64	48.46	59.86	68.64	71.84	79.58	80.37	81.36	78.20	71.70	63.30	41.55	66.78	80.44	71.07	45.22	65.85
1832....	48.69	57.35	57.96	64.12	72.95	76.93	79.90	79.96	76.05	67.59	59.22	54.37	65.01	78.93	67.62	53.47	66.26
1833....	53.24	55.32	57.14	64.36	74.14	77.80	81.36	79.39	77.42	66.16	56.21	50.32	65.21	79.52	66.60	52.96	66.07
1834....	49.25	57.86	58.25	63.78	71.28	80.69	82.36	79.74	76.46	68.63	59.38	53.14	64.44	80.93	68.16	53.42	66.74
1835....	46.84	40.14	51.69	61.88	73.73	79.75	79.87	80.04	72.94	67.49	64.51	51.48	62.43	79.89	68.31	46.15	64.19
1840....	47.94	57.86	61.36	67.18	73.40	77.44	79.29	79.80	73.03	67.35	57.53	49.80	67.31	78 84	65.97	51.87	66.00
1841....	52.80	48.92	56.33	63.70	69.51	77.00	82.79	81.00	76.68	63.22	61.32	50.20	63.18	80.26	67.07	50.64	63.16
1842...	53.23	53.43	63.35	66.78	71.81	77.03	78.02	71.15	76.18	66.28	53.54	49.33	67.31	75.40	65.34	52.00	65.01
1843....	53.67	48.73	48.82	64.68	71.61	78.06	81.47	80.43	80.85	67.31	59.62	53.39	61.70	80.00	69.26	51.93	65.72
1844....	50.08	51.71	58.12	66.95	75.98	79.85	83.29	81.53	75.15	66.60	61.92	52.76	67.02	81.56	67.89	51.52	67.00
1845....	54.78	53.11	59.20	68.87	72.43	80.67	82.84	80.52	73.17	67.31	57.55	44.61	66.83	81.34	66.01	50.83	66.25
1846....	50.65	51.64	58.63	65.95	74.36	79.33	80.65	82.77	78.95	......	61 46	53.44	66.31	80.92	......	51.92	......
1847....	52.71	53.82	54.42	66.62	69.32	80.01	81.07	80.97	76.55	66.66	60.51	53.80	63.45	80.68	67.90	53.44	66.37
1848....	50.02	50.17	59.52	66.05	......	79.51	81.75	82.75	77.07	64.28	50.20	61.75	......	81.34	63.84	53.95	......
1849....	49.47	49.00	58.69	64.73	72.65	81.31	78.89	81.25	75.29	67.94	60.87	54.24	65.36	80.48	68.03	50.90	66.19
1850....	54.89	50.68	56.21	62.53	71.76	76.84	83.76	83.31	77.81	66.28	59.84	55.58	63.50	81.30	67.98	53.72	66.37
1851....	51.09	56.82	60.87	66.00	73.45	78.95	82.84	82.17	74.32	67.61	56.68	48.47	66.77	81.32	66.20	52.13	66.61
1852....	43.16	52.96	60.20	62.87	73.80	76.61	81.40	79.79	75.76	70.54	58.48	56.27	65.62	79.26	68.26	50.79	65.98
1853....	45.23	53.20	58.22	66.63	76.40	79.39	82.83	80.85	77.06	65.70	60.52	54.19	66.42	81.02	67.76	50.87	66.52
1854....	40.83	53.09	62.72	62.76	73.35	78.55	82.06	82.37	78.93	67.92	56.29	47.97	66.28	81.00	67.71	47.30	65.57
Mean 28 y'rs	50.36	52.41	58.68	65.44	73.42	79.01	81.72	80.94	76.89	67.88	59.56	52.51	65.85	80.59	68.11	51.76	66.58

* Assistant Surgeon Stevenson reports the mildness of the winter of 1828 as very remarkable. The only frost observed was on the 17th of March.

OGLETHORPE BARRACKS, GEORGIA.

Latitude 32° 05′, *Longitude* 81° 07′. *Altitude* 40 *feet.*

1832....	49.93	57.87	59.18	66.87	74.88	77.11	80.11	79.10	77.02	......	......	......	70.31	78.77	......	......	......
1833....	......	......	......	......	77.90	81.68	81.42	80.30	77.51	69.76	56.26	56.99	......	81.13	67.84	......	......
1834....	53.26	63.87	62.76	68.15	74.81	83.70	83.06	81.85	77.51	70.27	63.06	58 29	68.57	82.87	70.28	58.47	70.05
1835....	52.68	49.71	59.64	63.77	76.66	78.81	78.98	79.99	72.99	66.10	63.36	50.82	66.69	79.26	67.48	51.07	66.12
1843....	57.20	53.17	49.90	66.90	73.47	78.96	82.20	81.13	81.83	67.35	59.90	53.48	63.42	80.76	69.69	54.62	67.12
1844....	49.00	52.93	57.30	68.53	78.92	79.89	81.74	79.83	74.42	64.07	60.00	49.18	68.25	80.48	66.16	50.37	66.31
1845....	52.52	53.62	59.50	72.02	73.67	81.40	83.14	80.87	77.12	63.70	56.51	45.01	68.40	81.80	66.78	50.38	66.84
1846....	52.39	53.71	61.24	64.07	75.44	78.41	79.71	81.05	77.50	.....	......	......	66.92	79.72	......	......	......
1850....	......	55.55	59.57	66.87	73.38	78.59	82.81	83.15	77.25	65.58	58.30	55.04	66.61	81.52	67.04	......	......
Mean 9 y'rs.	54.44	55.05	58.64	67.15	75.46	79.84	81.46	80.81	77.02	67.12	59.67	52.69	67.08	80.70	67.94	54.06	67.44

FORT MARION, ST. AUGUSTINE, FLORIDA.

Latitude 29° 48′, *Longitude* 81° 35′. *Altitude* 25 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1824....	......	......	......	......	.....	......	......	......	......	76.01	67.18	62.35	......	......	......	......	......
1825....	61.10	60.79	70.14	67.57	76.71	81.23	83.03	83.94	80.76	76.89	67.82	56.60	71.47	82.73	75.16	59·50	72.21
1826....	56.69	64.98	70.63	74.19	78.26	82.27	84.17	82.62	81.97	75.50	61.78	......	74.36	83.02	73.28	......	......
1827....	......	......	......	74.35	76.69	80.20	84.35	82.43	79.62	72.75	63.58	65.59	......	82.33	71.98	......	......
1828....	67.77	71.61	64.21	68.95	77.32	81.43	81.64	82.00	79.66	72.03	66.33	66.90	70.16	81.69	72.67	68.76	73.32
1829....	57.28	56.45	58.18	67.19	73.61	80.84	81.32	80.55	79.61	......	... ..	......	66.33	80.90	......	......	......
1830....	57.57	62.50	65.24	69.53	75.28	80.70	82.40	82.10	78.27	71.90	68.37	60.63	70.02	81.73	72.85	60.23	71.21
1831....	52.13	55.36	64.40	68.92	73.37	79.08	80.25	81.23	78.82	72.98	65.76	52.46	68.90	80.19	72.52	53.32	68.73
1832....	54.77	63.71	63.90	71.23	76.53	77.81	80.76	80.35	78.73	73.58	64.74	61.09	70.55	79.64	72.35	59.86	70.60
1833....	59.38	62.86	61.92	69.38	76.39	80.69	82.43	80.69	79.80	72.36	63.00	57.96	69.23	81.27	71.72	60.07	70.57
1834....	55.08	64.43	66.06	68.35	75.42	82.36	81.69	78.67	78.72	......	......	......	69.94	80.91	......	......	......
1836....	......	......	......	......	.....	......	80.31	82.38	78.10	68.46	57.47	53.42	......	......	68.01	......	......
1837....	51.65	55.33	59.01	65.53	73.19	78.68	79.82	81.45	76.86	70.21	62.44	58.28	65.91	79.98	69.84	55.42	67.79
1838....	56.86	52.36	58.78	65.06	68.28	74.72	77.56	76.71	74.90	63.38	74.27	56.77	64.01	76.33	70.85	55.33	66.63
1839....	55.01	61.33	62.62	62.67	69.83	78.97	78.45	79.08	77.96	71.45	58.01	49.57	64.71	78.83	69.14	55.30	66.99
1840....	......	......	......	......	......	......	......	......	......	73.30	56.03	49.39	......	......	......	......	......
1841....	56.86	51.22	59.22	63.89	66.14	75.19	80 37	79.16	78.22	69.16	61.27	58.77	63.08	78.24	69.55	55.62	66.63
1842....	59.89	60.62	70.07	71.96	64.51	79.73	75.76	76.38	78.11	69.79	62.90	55.36	68.85	77.29	70.27	58.62	68.78
1843....	58.50	58.09	55.12	67.50	71.56	77.05	80.01	78.58	79.60	70.77	67.06	59.09	64.73	78.55	72.48	58.56	68.77
1844....	57.02	57.21	61.82	69.51	74.15	77.72	80.96	79.33	76.93	70.92	67.33	56.03	68.49	79.34	71.73	56.75	69.10
1845....	59.32	59.18	63.68	71.60	72.95	79.89	82.82	......	77.78	72.87	61.92	50.25	69.41	......	70.85	56.25	......
1846....	57.50	56.75	64.12	69.05	75.07	77.82	......	......	......	......	......	......	69.41	......	......	......	......
1849....	......	......	......	......	......	79.14	80.20	83.14	......	......	......	......	......	80.82	......	......	......
1851....	......	63.70	64.32	69.32	74.86	79.14	80.55	80.54	77.48	73.35	65.18	57.45	69.50	80.07	72.00	......	......
1852....	49.26	60.31	......	.....	......	......	.. ...	......	......	......	......	......	......	......	......	......	......
Mean 20 y'rs	57.03	59.94	63.34	68.78	73.50	79.36	80.90	80.56	78.60	71.88	64.12	57.26	68.54	80.27	71.53	58.08	69.61

FORT SHANNON, PILATKA, EAST FLORIDA.

Latitude 29° 34′, *Longitude* 81° 48′. *Altitude* 25 *feet.*

1838*...	63.53	53.44	62.66	. ....	......	......	82.54	82.55	78.74	66.98	60.60	52.91	. ....	......	68.77	56.63	......
1839....	53.31	56.07	60.11	65.83	75.07	81.41	80.25	79.71	77.07	72.23	60.74	48.08	67.00	80.46	70.01	52.49	67.49
1840....	55.04	64.40	70.58	75.80	78.02	81.90	81.97	82.25	78.91	75.63	60.75	57.31	74.80	82.04	71.76	58.92	71.88
1841....	59.23	56.42	63.32	71.13	78.20	78.93	83 45	81.90	79.13	68.00	62.14	59.83	70.88	81.43	69.76	58.49	70.14
1842....	57.89	62.36	69.34	72.00	75.00	80.00	78.65	75.26	79.30	69.50	62.13	55.14	72.11	77.97	70.31	58.46	69.71
1843....	58.97	57.04	58.80	70.86	75.90	79.08	80.30	79.45	......	......	......	......	68.52	79.61	......	......	......
1849....	......	......	......	......	......	......	......	......	......	......	62.56	62.62	......	......	......	......	......
1850....	52.87	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 6 y'rs.	57.26	58.29	64.14	71.13	76.60	80.26	81.20	80.23	78.63	70.47	61.50	56.00	70.62	80.56	70.20	57.18	69.64

* At *Fort Heileman*, thirty miles northward, and at the same distance as *Fort Shannon* from the sea, from October, 1838, to December, 1839, and for the rst three months of 1841.

PICOLATA AND FORT HEILEMAN, FLORIDA; AND FORT HENDERSON, GEORGIA.

Latitude 29° 48′, *Longitude* 80° 45′*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
P. 1840.	......	......	......	......	......	......	......	......	76.95	74.61	61.00	57.61	......	......	70.85	......	......
P. 1841.	61.21	56.80	64.30	72.60	73.46	78.60	81.70	80.50	79.10	......	......	......	70.12	80.27	71.57	58.54	70.12
H. 1838.	61.40	53.40	62.60	......	......	......	......	......	......	66.98	60.60	52.91	......	......	......	55.90	......
H. 1839.	53.31	56.07	60.11	65.83	75.07	81.41	80.25	79.71	77.07	72.23	60.74	48.08	67.00	80.46	70.01	52.49	67.49
H. 1840.	51.35	59.90	67.10	74.26	76.58	82.34	......	......	......	70.91	57.38	54.82	72.65	......	......	55.36	......
H. 1841.	59.23	56.42	63.32	71.65	74.48	......	......	......	......	......	......	......	69.82	......	......	......	......
H'n 1838	......	......	......	......	......	......	......	......	......	67.33	59.33	54.50	......	......	......	......	......
H'n 1839	55.64	58.27	64.46	70.52	76.26	82.03	80.16	79.76	77.54	......	......	......	70.41	80.65	68.07	56.14	68.82
H. mean	56.32	56.45	64.28	70.58	75.38	81.88	80.25	79.71	77.07	70.04	69.57	51.94	70.08	80.61	72.23	54.90	69.46

* The latitude of Fort Heileman is the same, the longitude 82° 05′; Fort Henderson, latitude 30° 51′, longitude 82° 09′.

NEW SMYRNA, EAST FLORIDA.

Latitude 28° 54′, *Longitude* 81° 02′. *Altitude* 20 *feet.*

1840....	64.35	66.33	65.55	75.05	72.76	78.64	78.56	78.32	78.06	72.77	69.33	64.53	71.12	78.51	73.39	65.07	72.02
1841*...	64.81	63.15	65.60	......	74.21	78.81	81.70	79.50	77.83	70.50	65.00	62.50	......	80.00	71.11	63.49	......
1842....	63.00	65.00	72.50	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1853....	57.44	60.48	66.64	72.15	76.76	79.07	79.05	78.60	78.59	72.62	......	......	71.85	78.91	......	......	......
Mean...	62.40	63.74	67.57	73.60	74.24	78.84	79.77	78.81	78.16	71.96	67.17	63.51	71.80	79.14	62.43	63.22	69.17

* At Fort Mellon, a few miles inland, from May, 1841, to March, 1842.

FORT PIERCE, (CAPRON,) EAST FLORIDA.

Latitude 27° 30′, *Longitude* 80° 20′. *Altitude* 30 *feet.*

1840....	64.27	66.77	69.33	74.08	76.44	78.62	79.61	78.95	78.65	75.89	64.41	61.51	73.28	79.06	72.65	64.18	72.29
1841....	65.46	62 51	67.76	......	71.92	75.83	......	......	......	71.00	64.67	62.71	......	......	......	73.56	......
1842....	......	......	......	72.50	74.25	76.50	......	......	......	......	......	......	......	......	......	......	......
1851....	......	......	......	......	......	......	......	......	......	......	71.53	61.83	......	......	......	......	......
1852....	54.91	64.97	69.82	71.23	78.68	80.06	80.02	81.96	79.94	75.81	70.78	70.24	73.24	80.68	75.51	63.37	73.20
1853....	60.03	62.83	73.77	79.27	81.82	81.03	86.21	85.23	81.61	74.54	74.07	59.21	78.29	84.16	76.74	60.69	74.97
1854....	67.91	67.33	73.01	71.10	78.41	82.09	84.16	83.37	83.18	77.72	65.90	60.30	74.17	83.21	75.60	65.18	74.54
1855....	63.90	62.24	64.91	.....	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean...	62.75	64.42	69.77	73.63	76.92	79.02	82.50	82.38	80.85	75.00	68.56	62.63	73.44	81.30	74.80	63.27	73.20

FORT DALLAS,* EAST FLORIDA.

Latitude 25° 55′, *Longitude* 80° 20′. *Altitude* 20 *feet.*

1839....	......	68.44	71.77	72.82	79.15	82.41	81.11	82.61	78.75	78.51	71.87	63.07	74.58	82.04	76.38	......	......
1840....	65.07	69.12	72.53	77.91	78.92	81.63	82.24	81.63	79.50	78.20	67.59	64.75	76.45	81.83	75.10	66.31	74.92
1841....	68.71	65.44	70.31	75.25	75.67	78.62	81.40	78.42	77.45	.....	......	......	73.74	79.48	......	......	......
1850....	......	......	......	79.06	79.22	80.50	83.74	84.45	82.64	77.17	74.36	72.57	......	82.90	78.06	......	......
1855....	65.35	63.24	66.73	72.82	76.90	79.71	......	......	......	......	......	......	72.15	......	......	......	......
Mean...	66.38	66.56	70.45	75.57	77.97	80.57	82.12	81.80	79.59	77.96	71.27	66.80	74.66	81.50	76 27	66.58	74.75

* At *Fort Lauderdale* from January to September, 1839, and from July to September, 1840. This post is a few miles north of *Fort Dallas*, and at the same distance from the sea.

KEY WEST, FLORIDA.

Latitude 24° 32′, *Longitude* 81° 48′. *Altitude* 10 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1831....	67.49	69.38	75.08	75.96	77.26	80.39	81.88	81.57	81.44	77.97	75.32	69.58	76.10	81.28	78.24	68.82	76.11
1832....	68.40	74.28	72.35	75.42	80.17	80.62	83.28	80.54	80.38	75.55	71.14	70.56	75.98	81.48	75.69	71.08	76.06
1833....	68.25	71.67	72.03	......	......	......	......	......	......	......	......	68.47	......	......	......	69.46	......
1834....	71.94	72.20	74.32	74.03	78.07	82.98	82.53	82.96	80.91	76.76	70.78	70.52	75.47	82.82	76.15	71.55	76.50
1835....	67.57	64.45	71.16	74.88	78.60	80.83	81.96	81.30	79.56	73.95	75.74	68.39	74.88	81.36	76.42	66.80	74.87
1836....	......	......	......	......	......	......	79.38	82.16	81.67	......	......	......	......	......	......	......	......
1837....	66.22	68.80	70.77	73.12	77.90	81 35	82.35	82.01	81.00	77.85	76.13	70.29	73.93	81.90	78.33	68.44	75.65
1838....	71.14	52.25	70.62	73.37	77.02	79.55	82.15	82.83	81.72	78.54	73.44	70.22	73.67	81.51	77.90	64.54	74.40
1843....	......	......	......	78.14	81.22	84.02	85.24	84.17	82.12	79.89	77.06	72.88	......	84.48	79.69	......	......
1844....	......	68.70	70.96	75.00	78.93	81.34	83.64	83.94	83.50	78.80	77.29	69.23	74.96	82.97	79.86	......	......
1845....	69.98	68.90	74.06	77.05	78.63	80.68	83.52	......	......	......	......	......	76.58	......	......	......	......
1849....	......	......	......	......	......	......	......	84.17	82.96	78.98	......	......	......	......	......	......	......
1850....	......	......	......	......	......	......	85.34	84.78	83.15	77.41	73.54	74.17	......	......	78.03	......	......
1851....	73.85	74.52	74.02	77.18	79.57	81.79	83.48	83.64	81.31	79.80	75.46	69.96	76.92	82.97	78.85	72.77	77.88
1852....	61.20	70.02	74.37	76.06	80.28	82.81	83.42	83.86	82.07	79.38	76.19	74.93	76.90	83.36	79.21	68.72	77.05
1853....	68.01	71.30	74.08	76.14	79.57	80.48	83.47	83.93	82.56	80.41	75.76	68.44	76.60	82.61	79.58	69.25	77.01
1854....	71.75	71.95	76.56	73.89	80.84	83.34	83.30	82.59	82.56	78.24	72.70	66.39	77.10	83.08	77.83	70.03	77.01
1855....	67.18	65.94	70.28	75.09	79.13	82.74	......	......	......	......	......	.....	74.83	......	......	......	......
Mean 14 y'rs	66.68	68.88	72.88	75.38	79.10	81.63	83.00	82.90	81.92	78.11	74.66	71.03	75.79	82.51	78.23	69.53	76.51

FORT MYERS, SOUTH FLORIDA.

Latitude 26° 38′, *Longitude* 82° 00′. *Altitude* 50 *feet.*

1851....	65.45	69.02	69.89	73.88	78.68	79.59	81.71	83.41	80.40	78.29	72.74	64.59	74.15	81.57	77.14	66.35	74.80
1852....	58.16	68.01	73.55	74.28	81.95	82.41	83.50	82.93	82.89	78.40	74.07	72.42	76.59	82.94	78.45	66.19	76.04
1853..	63.59	67.51	71.57	76.23	80.76	80.66	84.38	84.43	81.12	77.65	72.50	61.70	76.19	83.16	77.09	64.27	75.18
1854....	67.56	67.39	73.74	71.07	79.13	82.35	81.91	81.85	82.59	76.72	66.70	60.18	74.65	82.04	75.34	65.04	74.27
Mean 4 y'rs.	63.39	67.98	72.19	73.86	80.13	81.25	82.87	83.15	81.75	77.76	71.50	64.72	75.39	82.41	77.00	65.36	75.04

FORT BROOKE, TAMPA BAY, FLORIDA.

Latitude 28° 00′, *Longitude* 82° 28′. *Altitude* 20 *feet.*

1825....	60.41	64.61	67.39	72.70	78.70	80.71	80.72	78.99	78.46	76.90	70.50	58.70	72.60	80.14	75.29	61 24	72.32
1826....	57.31	69.54	72.90	74.77	79.74	79.11	81.55	80.06	81.57	76.27	66.75	60.21	75.80	80.24	74.86	62.39	73.32
1827 ...	56.86	69.68	70.47	75.38	78.04	81.35	82.85	82.73	81.16	74.79	69.42	67.62	74.63	82.31	75.12	64.72	74.19
1828....	69.77	71.51	64.51	69.84	76.07	80.47	81.17	81.70	79.33	73.94	68.28	69.98	70.14	81.11	73.85	70.42	73.83
1829....	59.82	62.21	60.12	......	......	......	80.08	81.49	79.87	75.80	62.90	67.40	......	......	72.86	63.14	......
1830....	61.08	63.55	67.53	71.27	77.40	81.51	82.40	81.67	79.25	74.29	70.36	65.59	72.07	81.86	74.63	63.41	72.99
1831....	56.05	60.09	68.19	72.27	74.67	79.64	81.06	81.09	81.15	75.55	67.69	59.60	71.71	80.60	74.80	58.58	71.67
1832....	60.73	70.01	66.45	70.55	77.38	80.71	......	......	......	......	......	......	71.46	......	......	......	......
1837....	......	......	......	......	......	......	84.11	81.09	78.93	75.00	66.95	63.96	......	......	73.63	......	......
1838....	64.99	59.61	64.71	70.08	72.20	78.07	78.29	78.85	77.50	72.32	67.04	61.93	69.00	78.40	72.32	62.18	70.47
1839....	61.91	61.86	65.32	71.59	77.88	81.23	81.46	82.43	80.56	77.19	68.39	54.75	71.60	81.71	75.38	59.51	72.10
1840....	57.89	65.51	68.37	75.87	76.00	78.11	77.71	78.56	76.86	73.04	63.31	59.15	73.41	78.17	71.07	60.85	70.87

FORT BROOKE, TAMPA BAY, FLORIDA—Continued.

Latitude 28° 00′, *Longitude* 82° 28′. *Altitude* 20 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1841....	65.10	60.06	66.72	61.46	74.21	78.59	80.64	79.05	52.85	69.56	64.70	63.08	67.46	79.43	62.37	62.75	68.00
1842....	62.87	64.54	77.02	71.08	76.39	79.57	78.47	79.01	78.91	71.80	64.47	61.42	74.83	79.02	71.73	62.94	72.13
1843....	62.30	59.92	62.67	72.56	74.90	76.55	77.35	76.90	77.75	70.05	68.85	63.00	70.01	76.93	72.22	61.74	70.22
1844....	61.02	60.20	63.53	70.70	77.87	76.66	80.63	78.67	77.35	72.24	69.64	55.10	70.70	78.65	73.08	58.77	70.30
1845....	62.00	60.82	67.25	73.91	75.24	79.56	79.42	79.18	77.59	72.74	62.62	55.74	72.13	79.39	70.98	59.51	70.50
1846....	59.71	62.08	66.58	72.15	76.47	79.31	79.88	80.01	79.24	73.02	66.10	63.35	71.73	79.73	72.79	61.71	71.49
1847....	65.05	60.98	65.29	72.83	74.37	81.09	80.68	81.16	79.00	74.70	67.83	55.70	70.83	80.98	73.84	60.58	71.56
1848....	63.31	62.42	67.45	71.32	76.50	78.25	83.46	80.71	80.22	......	63.17	71.59	71.74	80.80	......	65.77	......
1849....	63.61	61.39	71.60	72.41	79.22	80.71	81.70	83.22	81.96	75.83	69.37	70.05	74.41	81.88	75.72	65.02	74 26
1850....	70.45	64.64	70.92	73.62	76.41	78.61	80.86	81.74	81.56	72.02	......	......	73.65	80.40	......	......	......
1851....	......	.....	.....	72.27	76.46	78.66	80.16	80.22	76.33	73.87	66.61	58.81	......	79.68	72.27	......	......
1852....	52.70	62.56	70.26	70.96	77.66	79.43	79.61	80.08	79.04	76.07	67.82	66.34	72.96	79.37	74.01	60.53	71.72
1853....	58.93	64.79	69.83	73.81	78.13	78.79	82.52	82.47	79.78	75.55	71.90	58.13	63.92	81.26	75.74	60.62	70.38
1854....	62.94	62.36	70.06	70.07	77.49	80.51	81.08	79.59	80.71	73.83	62.11	56.52	72.54	80.39	72.22	60.61	71.44
Mean 25 y'rs	61.53	63.54	67.72	71.82	76.64	79.46	80.72	80.43	78.28	74.02	66.94	61.99	72.06	80.20	73.08	62.85	71.92

FORT MEADE, FLORIDA.

Latitude 28° 01′, *Longitude* 82° 00.′ *Altitude* 80 *feet.*

1851....	......	......	......	......	76.35	79.32	80.24	80.82	76.49	72.57	65.89	57.68	......	80.13	71.64	......	......
1852....	52.10	63.54	69.32	70.38	77.96	78.88	79.62	80.54	78.80	73.82	68.16	68.59	72.55	79.68	73.59	61.41	71.81
1853....	59.36	62.82	67.09	71.19	76.16	75.65	79.01	78.76	80.29	74.44	69.60	56.98	71.48	77.84	74.78	59.72	70.96
1854....	63.75	63.33	70.64	68.10	76.31	79.10	80.17	80.00	81.15	74.40	70.27	......	71.68	79.75	75.27	......	......
Mean...	58.40	63.23	69.02	69.89	76.69	78.24	79.76	80.03	79.18	73.81	68.48	61.08	71.87	79.34	73.82	60.90	71.48

FORT MICANOPY, FLORIDA.

Latitude 29° 30′, *Longitude* 82° 28′. *Altitude* 60? *feet.*

1838....	......	......	......	......	......	......	80.99	81.63	77.13	......	61.92	58.71	......	......	......	......	......
1839....	68.20	60.00	63.07	70.27	77.42	83.91	81.23	80.47	78.51	72.81	63.14	52.48	70.25	81.87	71.49	60.23	70.96
1840....	55.59	64.78	69.90	77.46	78.21	78.64	76.80	77.64	75.85	73.35	60.00	55.89	75.19	77.69	69.73	58.75	70.34
1841....	62.10	56.15	64.30	67.83	73.96	77.63	81.68	78.45	78.10	66.50	57.77	55.81	68.70	79.25	67.46	58.02	68.36
1842....	56.10	60.82	72.33	72.56	76.90	76.93	79.40	78.51	79.87	69.30	62.20	57.10	73.60	78.28	70.46	58.01	70.09
Mean 4½ y'rs	60.50	60.44	67.40	72.03	76.62	79.28	80.02	79.34	77.89	70.49	61.01	56.00	72.02	79.55	69.80	58.98	70.09

FORT KING, FLORIDA.

Latitude 29° 10′, *Longitude* 82° 10′. *Altitude* 50 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1832....	......	......	......	......	......	......	......	......	......	75.14	66.44	63.05	......	......	......	......	......
1833....	60.23	63.45	65.00	74.01	79.56	85.26	84.70	84.75	81.42	72.55	61.15	56.83	72.86	84.90	71.71	60.17	72.41
1834....	61.39	67.11?	66.11	72.62	78.10	84.61	83.34	82.51	81.62	72.96	62.81	61.68	72.27	83.49	72.46	63.39	72.90
1835....	56.78	52.86	61.20	70.47	78.17	*78.41	77.93	78.71	74.23	68.76	68.53	56.67	69.95	78.35	70.52	55.44	68.56
1836....	56.92	54.50	61.71	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1837 ...	......	......	......	......	......	......	81.26	79.35	74.93	......	......	......	......	......	......	......	......
1840....	......	......	......	......	......	......	......	......	......	......	61.53	55.83	......	......	......	......	......
1841....	60.14	55.98	62.52	68.07	71.72	74.95	80.94	78.74	77.33	66.20	59.56	57.21	67.44	78.21	67.70	57.78	67.78
1842....	57.39	58.50	69.65	71.90	74.38	75.78	75.85	76.50	79.56	67.75	62.28	58.56	71.98	76.04	69.86	58.15	69.01
1843....	56.49	55.04	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 6 y'rs.	58.48	58.21	64.36	71.41	76.39	79.78	80.80	80.09	78.18	70.56	63.19	58.55	70.72	80.22	70.64	58.41	70.00

* "Position of thermometer changed in May, (1835,) to a more favorable one. In June, received a new thermometer, which ranged 2° lower than the old one."—*Assistant Surgeon Robert Archer.*

FORTS HARLEE, RUSSELL, WHEELOCK, HOLMES, AND WACAHOOTEE, INTERIOR OF FLORIDA.

H. 1838	......	......	......	......	......	......	85.33	85.92	77.95	......	......	......	......	......	......	......	......
R. 1840	......	......	......	......	......	......	......	......	......	......	......	57.11	......	......	......	......	......
R. 1841	63.00	58.00	66.00	72.00	77.00	79.00	84.00	81.50	78.00	67.49	59.78	59.69	71.67	81.50	68.42	60.23	70.46
R. 1842	60.60	56.00	74.00	71.17	74.00	79.21	......	......	......	......	......	......	73.06	......	......	......	......
Wh.1841	62.40	56.40	64.60	......	......	......	81.90	81.09	79.40	69.70	62.68	59.33	......	......	70.59	59.38	......
H's 1841	62.75	57.04	64.48	71.50	73.58	78.40	......	......	......	......	......	......	69.85	......	......	......	......
Wa.1841	61.00	56.00	64.00	69.67	72.00	75.00	80.00	78.00	77.00	65.67	59.33	56.33	68.56	77.67	64.00	57.78	67.00
Wa.1842	57.25	55.07	70.12	......	......	......	......	......	......	......	......	......	......	......	......	......	......

NOTE.—These posts are in the vicinity of Forts King and Micanopy. Their local topography is similar to that of these and other posts in the interior of Florida.

CEDAR KEYS, FLORIDA.

Latitude 29° 07′, *Longitude* 83° 03′. *Altitude* 35 *feet.*

1840....	......	......	......	......	......	......	81.29	80.45	78.03	76.03	60.76	57.00	......	......	71.61	......	......
1841....	59.33	57.08	63.90	70.12	76.36	78.43	82.70	81.00	78.78	68.38	63.21	57.80	70.11	80.71	70.12	58.07	69.75
1842....	57.77	59.79	67.42	69.66	73.14	76.66	76.90	76.66	80.16	71.07	62.91	58.23	70.05	76.74	71.38	58.60	69.19
Mean..	58.55	59.46	65.66	69.86	74.72	77.55	80.30	79.37	78.99	71.83	62.29	57.68	70.08	79.07	71.04	58.22	69.60

FORT WACASSASSA,* FLORIDA.

1840....	......	......	......	......	......	......	......	......	......	73.39	57.83	54.84	......	......	......	......	......
1841....	61.58	57.53	65.65	71.90	73.84	76.80	81.42	80.78	78.16	66.90	59.80	57.13	70.46	79.67	68.29	58.75	69.29
1842....	55.97	58.25	68.10	69.00	73.22	77.43	76.90	77.93	78.77	68.85	61.46	58.06	70.11	77.42	69.69	57.43	68.66
Mean..	58.78	57.89	66.87	70.45	73.53	77.11	79.66	79.85	78.46	69.71	59.70	55.68	70.28	78.87	69.29	57.45	68.97

* About thirty miles northeast from Cedar Keys. *Fort Fanning* is at the same distance north-northeast, on the Suwanee river.

FORT FANNING, FLORIDA.

Latitude 29° 35′, *Longitude* 83° 00.′ *Altitude* 50 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1840....	......	......	......	......	......	......	......	......	......	71.38	58.03	50.26	......	......	......	......	......
1841....	62.20	56.82	63.64	70.90	75.68	78.50	83.35	84.01	79.45	74.52	63.33	60.03	70.07	81.95	72.43	59.68	71.03
1842....	57.16	59.71	70.35	70.44	75.64	79.75	79.75	80.38	81.45	70.50	60.50	54.81	72.14	79.96	70.81	57.23	70.03
Mean..	59.68	58.26	67.00	70.67	75.66	79.12	81.55	82.20	80.45	72.13	60.62	55.03	71.11	80.96	71.07	57.66	70.20

FORTS PLEASANT AND GAMBLE, MIDDLE FLORIDA.*

P. 1841.	......	......	......	......	......	......	81.74	80.71	78 30	67.80	61.67	58.97	......	......	69.26	......	......
P. 1842.	59.13	61.71	73.90	72.10	76.71	82.33	79.88	79.93	81.13	......	......	......	74.24	80.71	......	......	......
G. 1840.	62.95	61.25	65.82	71.29	73.85	78.37	78.70	79.02	.....	......	......	......	70.32	78.70	......	......	......
G. 1841.	......	......	......	......	......	79.44	81.20	80.85	78.00	66.90	61.62	54.71	......	80.50	68.84	......	......
G. 1842.	58.11	59.85	70.90	70.77	76.50	81.30	76.93	78.33	78.41	67.93	57.35	53.58	72.72	78.85	67.90	57.18	69.16
Mean...	55.53	60.55	68.36	71.03	75.17	79.70	78.94	79.40	78.20	67.41	59.48	54.64	71.52	79.35	68.36	56.91	69.04

* These posts are from ten to thirty miles southeast from Talahassee, and ten to twenty miles from the Gulf coast at Apalachee bay. Lat. 30° 20′, long. 84°.

FORT BARRANCAS, PENSACOLA, FLORIDA.*

Latitude 30° 18′, *Longitude* 87° 27′. *Altitude* 20 *feet.*

1822....	51.85	51.34	61.47	68.82	77.78	84.16	81.87	82.22	77.92	69.87	65.86	54.49	69.36	82.75	71.22	52.56	68.97
1823....	53.16	50.49	63.41	70.62	79.36	79.72	81.92	81.42	77.90	68.96	55.62	56.51	71.13	81.02	67.49	53.39	68.26
1824....	55.62	53.80	65.88	67.35	75.79	81.30	83.55	82.86	77.00	68.73	61.44	55.98	69.34	82.57	69.06	55.13	69.02
1826....	51.45	58.71	67.46	70.72	78.08	79.96	82.88	81.90	78 57	72.03	62.73	54.50	72.09	81.58	71.11	54.89	69.92
1827....	51.36	64.10	63.23	72.13	72.12	81.39	84.62	82.15	78.87	68.99	62.37	62.06	69.16	82.72	70.08	59.17	70.28
1828....	62.30	61.13	62.94	65.55	76.13	81.04	82.20	82.20	76.22	69.53	62.00	62.00	68.21	81.85	69.25	61.81	70.28
1829....	54.76	52.27	56.07	65.12	73.93	82.94	83.68	83.14	81.94	73.75	59.29	60.94	65.04	83.25	71.66	55.99	68.73
1842....	......	......	......	......	......	......	81.10	80 66	76.86	71.42	61.46	55.27	......	......	69.91	......	......
1843....	56.25	54.96	52.14	70.03	75.58	79.86	80.32	80.12	82.53	68.56	64.90	56.09	65.92	80.10	71.99	55.77	68.44
1844....	56.27	57.41	60.90	69.62	78.44	80.43	83.64	80.75	77.95	68.76	63.11	52.43	69.65	81.61	69.94	55.37	69.14
1845....	54.96	56.17	60.74	70.86	73.54	79.26	81.40	......	......	......	56.91	45.37	68.38	......	......	52.17	......
1846....	52.11	53.53	62.02	66.90	......	......	80.27	79.92	78.60	67.91	61.93	57.82	......	......	69.48	54.49	......
1847...	50.80	54.02	57.69	69.28	71.82	......	......	......	......	......	......	......	66.26	......	......	......	......
1849....	58.20	53.09	66.62	68.02	74.56	79.96	79.36	......	......	......	......	......	69.73	......	......	......	......
1851....	54.00	58.98	60.94	67.96	74.66	80.73	83.04	81.37	76.68	......	58.83	52.40	67.85	81.71	......	55.12	......
1852....	44.16	57.15	......	......	......	......	81.48	80.28	77.85	71.35	60.00	61.64	......	......	69.73	54.32	......
1853....	49.37	54.69	62.30	69.27	74.45	79.42	81.38	81.49	76.83	......	......	51.71	68.67	80.76	......	......	......
1854...	54.71	54.56	64.98	62.93	75.40	81.00	84.55	84.10	81.44	71.34	58.89	49.60	67.77	83.22	70.56	52.96	68.63
Mean 17 y'rs	53.61	55.58	61.80	68.51	75.45	80.80	82.26	81.64	78.47	70.08	61.02	55.57	68.59	81.57	69.86	54.92	68.74

* The first seven years of this series were observed at *Cantonment Clinch*, three miles from Pensacola, and fourteen from Barrancas, which is at the entrance of the harbor.

FORT MORGAN, ALABAMA.

Latitude 30° 14′, *Longitude* 88° 00′. *Altitude* 20 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1835...	55.52	46.20	55.41	64.04	75.65	77.56	80.06	80.31	75.46	......	......	......	65.03	79.31	......	......	......
1841....	......	......	......	......	......	......	82.00	......	......	......	......	......	......	......	......	......	......
1842....	......	......	......	64.16	74.48	79.91	82.34	80.30	79.06	71.26	59.00	52.00	......	80.85	69.77	......	......
1843....	54.86	54.17	51.16	68.43	76.70	80.08	81.96	......	......	......	......	......	65.43	......	......	......	......
Mean...	55.19	50.18	53 28	65.54	75.61	79.19	81.50	80.30	77.26	71.26	59.00	52.00	64.35	80.33	69.17	53.68	66.88

MOUNT VERNON ARSENAL, ALABAMA.

Latitude 31° 12′, *Longitude* 88° 02′. *Altitude* 200 ? *feet.*

1840....	......	......	......	......	......	......	......	78.83	74.12	67.65	55.92	50.53	......	......	65.93	......	......
1841....	50.50	53.00	58.00	67.00	72.25	77.00	......	......	......	......	......	......	65.75	......	......	......	......
1842....	......	... ..	66.50	67.12	73.00	78.50	76.70	75.50	74.60	65.82	55.03	49.05	68.87	76.90	65.15	......	......
1843....	52.50	50.70	47.70	69.50	75.30	76.66	82.35	78.21	78.86	63.61	59.56	49.61	64.17	79.07	67.34	50.94	65.38
1844....	......	......	......	......	77.51	78.42	81.17	78.16	73.97	62.65	57.07	47.40	......	79.25	64.56	......	......
1845....	51.30	53.14	55.73	70.49	73.59	80 08	81.36	81.04	74.30	62.62	53.03	42.53	66.60	80.83	63.32	48.99	64.93
1846....	48.93	50.63	61.57	64 18	72.72	76.52	77.43	78.19	77 60	65.17	58.87	57.23	66.16	77.38	67.21	52.26	65.75
1847....	47.40	55.02	57.09	69.99	70.53	77.90	77.08	77.33	71.45	66.30	57.84	47.11	65.87	77.44	65.20	49.84	64.57
1848....	52.98	56.61	60.44	64.50	73.95	74.89	78.22	77.82	72.76	65.59	51.19	57.98	66.30	76.98	63.18	55.86	65.58
1849....	53.00	49.86	65.14	64.75	72.50	76.90	76.27	79.05	74.50	64.21	58.90	54.22	67.46	77.41	65.87	52.36	65.77
1850....	56.30	51.66	61.55	66.61	73.18	76.90	79.89	81.61	78.33	66.96	55.57	52.04	67.11	79.47	66.95	53.33	66.72
1851....	51.26	57.04	59.12	67.52	74.89	79.83	81.82	84.05	75.53	66.83	54.79	49.82	67.17	80.29	65.71	52.71	66.47
1852....	42.15	59.55	64.17	64.42	76.43	79.60	82.29	82.14	79.01	70.58	56.87	59.51	68.34	81.34	68.82	53.74	68.06
1853....	47.48	53.84	61.22	70.96	74.31	79.86	78.55	80.44	75.70	65.88	61.10	47.31	68.83	79.62	67.56	49.54	66.39
1854....	51.52	53.18	65.24	62.30	74.64	79.17	78.90	81.17	79.58	69.17	54.76	49.22	67.39	79.75	67.84	51.31	66.57
Mean 14 y'rs	50.44	53.69	60.26	66.87	73.92	78.03	78.62	79.80	75.03	65.93	56.47	51.04	67.02	78.82	65.81	51.72	65.84

BAY OF ST. LOUIS, PASS CHRISTIAN, AND EAST PASCAGOULA, MISSISSIPPI.

StL.1833	......	......	......	......	......	......	84.54	81.40	79.19	......	......	......	......	......	......	......	......
StL.1834	......	......	......	......	......	......	83.08	82.80	78.91	......	......	......	......	......	......	......	......
StL.1835	......	.....	......	68.80	78.76	78.92	79.07	80.23	75.30	......	......	......	......	79.41	......	......	......
C. 1843	......	......	......	.....	......	......	81.76	80.00	80.00	67.95	......	......	......	......	......	......	......
C. 1844	......	......	......	......	......	......	82.92	81.80	78.68	68.45	......	......	......	......	......	......	......
C. 1845	... ..	......	......	......	......	......	82.70	......	......	......	......	......	......	......	......	......	......
P. 1848	......	......	......	......	......	......	......	79.85	74.31	70.11	55.88	......	......	......	66.77	......	......
P. 1849	......	......	......	......	......	......	......	85.10	81.01	69.78	66.00	......	......	......	72.26	......	......
P. 1850	......	......	......	......	......	......	......	86.08	83.44	......	......	......	......	......	......	......	......
P. 1851	......	......	......	......	75.80	83.05	85.17	84.05	80.46	. ....	......	......	......	84.09	......	......	......
P. 1852	......	......	......	......	78.11	80.84	83 98	83.25	80.89	......	......	......	......	82.69	......	......	......
P. 1853	......	......	......	......	......	......	82.63	84.31	80.10	......	......	......	......	.. ...	......	......	......
Mean ..	.....	......	......	68.80	77.56	80.94	82.87	82.63	79.11	69.07	60.94	......	......	82.14	69.71	......	......

These are summer stations for troops stationed at New Orleans and other posts of the vicinity, and their position and exposure are so nearly alike as to permit combination of the observations in one result. *Pass Christian* in latitude 30° 20′, longitude 89° 25′; *East Pascagoula*, latitude 30° 20′, longitude 88° 42′.

FORT PIKE, LOUISIANA.

Latitude 30° 10′, *Longitude* 89° 38′. *Altitude*, 10 *feet*.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1824....	......	......	......	......	......	......	......	......	......	69.88	......	......	......	......	......	......	......
1825....	52.42	57.94	68.45	68.79	78.60	81.93	83.62	85.48	78.11	......	......	......	71.95	83.68	......	......	......
1826....	......	......	......	......	......	......	85.09	84.26	79.87	73.55	63.64	55.11	......	......	72.02	......	......
1827....	50.81	65.08	62.66	72.15	73.19	83.61	84.50	82.41	80.63	69.19	62.53	62.74	69.33	83.51	70.78	59.54	70.79
1828....	60.00	64.67	64.33	70.47	79.08	83.43	83.26	83.32	78.62	74.04	67.03	64.28	71.29	83.34	73.23	62.98	72.71
1829....	55.63	51.17	58.55	65.78	75.52	82.72	82.96	83.33	81.51	72.28	60.84	61.15	66.62	83.00	71.54	55.98	69.28
1830....	57.51	59.56	68.17	71.60	77.63	82.05	85.10	84.83	81.56	72.99	67.99	59.52	72.47	83.99	74.18	58.20	72.21
1831....	49.31	51.54	65.77	69.45	74.46	80.97	83.24	80.48	78.17	70.91	63.49	47.27	69.89	81.56	70.86	49.37	67.92
1832 ...	54.57	65.27	63.52	71.21	77.90	80.58	82.26	83.83	78.21	72.10	60.11	59.42	70.88	82.22	70.14	59.75	70.75
1833....	58.76	60.21	62.10	72.99	78.79	82.76	82.63	81.11	81.32	67.87	61.02	56.37	71.29	82.17	70.07	58.45	70.49
1834....	51.41	58.88	64.57	71.26	76.44	82.93	83.13	84.28	78.22	72.11	62 69	56.67	70.76	83.45	71.01	55.65	70 22
1835....	54.37	47.21	58.15	67.49	80.21	82.42	......	......	......	69.90	64.89	55.54	68.62	......	......	52.37	......
1836....	55.11	55.17	60.77	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1838....	62.33	51.09	63.79	72.93	71.89	83.16	85.46	85.19	78.05	......	......	......	......	......	......	......	......
1842....	......	......	......	......	......	......	79.20	79.00	75.75	67.84	57.76	51.06	......	......	67.12	.....	......
1843....	52.47	52.30	49.65	71.40	77.60	80.10	81.45	81.45	79.80	67.75	64.65	54.70	66.22	81.00	70.73	53.16	67.78
1844....	56.20	57.55	61.58	72.11	81.10	81.47	85.06	82.29	78.33	67.07	59.60	52.66	71.60	82.94	68.33	55.47	69.58
1845....	55.29	57.70	61.65	73.64	75.96	82.59	83.97	......	......	......	......	45.38	70.42	......	......	52.79	......
1846....	49.98	54.51	63.83	67.03	.....	......	......	......	......	......	......	......	......	......	......	.....	......
Mean 14 y'rs	54.76	56.86	62.34	70.55	77.03	82.19	83.39	82.94	79.16	70.53	62.80	55.77	69.97	82.84	70.83	55.80	69.86

FORT WOOD, LOUISIANA.

Latitude 30° 08′, *Longitude* 89° 51′. *Altitude* 20 *feet*.

1832....	......	......	......	......	......	......	83.00	82.27	77.62	72.00	62.28	57.65	......	......	70.63	......	......
1833....	59.55	60.52	60.38	70.88	78.02	82.51	83.56	83.18	81.26	66.20	58.05	54.23	69.76	83.08	65.17	58.10	69.03
1834....	50.48	61.26	63.79	71.29	75.93	82.93	......	......	......	......	.....	......	70.00	......	......	......	......
1835....	51.65	49.64	60.43	68.00	79.54	81.80	81.07	83.01	76.58	69.95	63.71	53.87	69.33	81.96	70.08	51.54	68.28
1843....	54.58	52.38	51.41	71.12	78.30	78.24	81.45	80.21	80.58	68.20	65.15	55.90	66.94	79.97	71.31	54.29	68.13
1844....	57.60	58.36	61.62	72.12	79.92	81.59	84.26	82.03	79.07	68.20	61.81	53.42	71.22	82.63	69.69	56.46	70.00
1845....	55.59	58.05	61.33	73.49	75.76	80.76	82.60	82.15	78.21	67.03	......	......	70.19	81.84	......	......	......
1846....	53.93	54.83	62.40	69 29	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 6½ y'rs	54.77	56.44	60.19	70.88	77.91	81.30	82.66	82.14	78.90	68.60	62.20	55.01	69.66	82.03	69.90	55.41	69.25

NEW ORLEANS, LOUISIANA.

Latitude 29° 57′, *Longitude* 90° 00′. *Altitude* 10 *feet*.

1825....	53.26	53.33	67.80	66 90	81.82	88.54	82.95	84.33	80.17	.... .	62.60	44.04	72.17	85.27	......	50.21	......
1826....	53.20	63.27	70.71	72.54	77.61	83.24	84.16	85.15	80.64	72.97	65.55	58.28	73.62	84.18	73.05	58.25	72.27
1827....	56.74	66.85	64.31	73.03	74.00	82.65	......	......	......	67.57	62.04	62.00	70.11	......	......	61.86	......
1828....	64.58	66.01	65.34	......	......	......	......	......	......	.... .	......	......	......	......	......	......	......
1832....	......	......	......	66.50	74.25	78.64	82.75	82.52	77.65	......	......	......	......	81.30	......	......	......
1833....	55.37	60.35	60.71	......	......	......	......	.....	......	......	......	......	......	......	......	......	......
1834....	......	......	......	......	......	......	......	.....	......	70.74	63.08	59.10	......	......	......	......	......

NEW ORLEANS, LOUISIANA—Continued.

Latitude 29° 57′, *Longitude* 90° 00′. *Altitude* 10 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1835....	41.02	50.70	61.29	......	......	......	......	......	......	69.73	65.81	58.11	......	......	......	49.94	......
1838....	56.61	52.38	64.10	67.19	68.65	82.07	82.47	82.11	77.35	68.39	57.07	52.85	66.65	82.22	67.60	53.95	67.61
1839....	56.22	54.48	60.96	70.98	77.33	83.03	82.48	82.25	79.22	75.39	57.40	48.09	69.76	82.59	70.67	52.93	68.99
1840....	55.09	61.77	69.15	74.38	77.30	79.97	85.56	84.96	78.91	74.32	65.66	56.13	73.61	83.50	72.96	57.66	71.93
1841 ...	55.46	55.61	64.81	71.62	76.17	84.35	87.02	83.86	79.48	69.17	61.83	55.40	70.87	85.08	70.16	55.49	70.40
1842....	56.96	58.50	71.35	69.80	74.96	80.56	80.25	79.58	78.63	69.03	59.06	53.29	72.03	80.13	68.91	56.25	69.33
1843....	55.43	54.16	62.03	70.85	75.79	78.50	......	......	......	......	68.13	55.77	62.22	80.08	69.03	55.12	67.61
1844....	58.54	59.28	63.55	72.52	78.46	79.80	......	......	......	......	65.02	57.18	71.51	81.51	70.75	58.33	70.52
1845....	57.25	59.91	62.11	72.75	73.20	79.46	......	.....	......	......	......	......	69.35	......	......	......	......
1846....	......	......	61.50	67.16	75.28	80.14	82.73	......	......	68.82	63.94	62.14	67.98	......	......	......	......
1847....	54.85	57.30	61.90	71.48	76.56	78.75	81.82	82.68	77.85	71.16	64.37	53.25	69.98	81.08	71.13	55.13	69.33
1848....	58.18	61.67	64.33	68.39	76.47	82.86	80.42	81.25	79.51	73.67	59.58	59.43	69.73	81.51	70.92	59.76	70.48
1849....	60.89	56.08	70.17	71.00	76.82	81.08	81.10	......	......	......	......	......	72.63	......	......	......	......
1850....	59.31	55.32	63.89	68.13	72.26	76.12	82.54	......	......	66.41	60.58	55.49	68.09	......	......	56.71	......
1851....	54.43	59.79	61.64	68.24	......	......	......	......	......	69.67	60.89	55.21	......	......	......	56.48	......
1852....	46.59	62.10	63.96	67 27	......	......	......	......	......	74.25	61.37	61.98	......	......	......	56.89	......
1853....	50.65	56.51	62.70	70.42	74.33	80.23	......	......	......	......	......	......	69.15	......	......	......	......
Mean 20 y'rs	55.27	58.35	64.15	70.06	75.62	81.11	82.94	82.77	78.94	70.75	62.44	55.98	69.94	82.27	70.71	56.53	69.86

FORTS ST. PHILIP AND JACKSON, LOUISIANA.*

Latitude 29° 25′, *Longitude* 89° 30′. *At sea level.*

St P 1826	......	......	......	......	......	......	83.36	80.34	80.83	74.27	64.59	59.50	......	......	73.23	......	......
St P 1828	62.81	64.22	60.85	......	......	......	......	......	......	......	......	......	......	......	......	......	......
St P 1831	48.32	48.24	57.20	......	......	......	......	......	......	......	......	......	......	......	......	......	......
J...1831	......	......	......	......	......	......	82.35	80.07	80.89	71.80	68.05	47.59	......	......	73.58	......	......
J...1832	61.14	67.17	66.82	73.55	78.13	81.52	84.21	83.95	79.96	76.81	65.87	65.39	72.83	82.89	73.21	64.57	73.62
J...1833	64.44	63.17	62.59	......	......	......	......	......	......	......	61.96	58.75	......	......	......	62.12	......
J...1834	60.58	64.32	65.73	72.16	75.87	82.46	......	......	......	68.95	54.45	63.64	......	......	......	62.85	......
J...1835	59.53	53.30	60.51	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean..	59.47	60.14	62.37	72.86	77.00	81.99	82.97	81.45	80.56	72.96	62.98	58.97	70.78	82.14	72.17	59.53	71.15

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* The posts are on opposite sides of the Mississippi river, fifty miles southeast of New Orleans, and twenty miles from the Delta proper. The coast of the Gulf is much nearer at the southwest.

BATON ROUGE, LOUISIANA.

Latitude 30° 26′, *Longitude* 91° 18′. *Altitude* 41 *feet.*

1822....	52.37	49.71	62.05	67.99	78.16	84.80	81.20	81.07	76.15	66.67	63.94	51.77	69.40	82.36	68.92	51.28	67.99
1824.. .	57.13	51.41	64.90	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1825....	49.80	57.58	64.79	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1828....	......	......	......	......	......	......	......	......	.....	71.39	62.81	60.76	......	......	......	......	......
1829....	56.37	49.90	55.57	63.80	74.35	81.87	80.70	80.43	77.17	70.14	57.51	57.31	64.57	81.00	68.27	54.53	67.09
1830....	54.61	57.07	64.81	65.87	73.04	79.47	82.43	82.63	78.31	70.27	63.59	54.62	67.91	81.51	70.72	55.43	68.89
1831....	46.16	48.61	61.41	66.46	73.00	79.84	80.89	76.58	75.79	66.25	57.67	43.57	66.96	79.10	66.57	46.11	64.68

BATON ROUGE, LOUISIANA—Continued.

Latitude 30° 26′, *Longitude* 91° 18′. *Altitude* 41 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1832....	49.86	61.77	61.00	68.41	75.27	78.55	82.16	81.48	76.19	68.51	58.75	57.98	68.23	80.73	67.82	56.54	68.44
1833....	57.85	58.11	58.62	70.49	77.87	82.63	83.55	82.31	79.18	63.56	57.56	54.59	68.99	82.83	66.77	56.85	68.61
1834....	50.08	60.56	63.23	70.01	75.69	83.86	83.02	82.29	74.32	68.61	60 00	55.35	69.64	83.06	67.64	55.33	68.92
1835....	55.19	45.52	56.38	64.89	77.88	81.09	78.43	80.01	73.31	66.39	59.70	54.16	66.38	79.84	66.47	51.62	66.08
1836....	55.11	54.82	56.92	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1837....	......	......	......	66.41	76.71	81.61	85.56	85.14	79.25	71.39	65.74	53.79	......	84.10	72.13	......	......
1838....	54.14	45.94	63.71	73.05	72.31	83.86	84.05	83.05	76.82	......	......	......	69.69	83.65	......	......	......
1839....	54.52	51.19	61.95	74.08	78.96	84.65	82.05	80.23	79.86	65.80	54.18	50.27	71.66	82.31	66.61	51.99	68.14
1840....	55.82	63.59	71.56	77.95	77.59	82.02	81.52	82.44	78.37	......	......	......	75.70	81.99	......	......	......
1843....	55.08	54.50	51.47	72.76	76.93	79.74	82.09	80.80	80.10	65.02	66.46	55.75	67.07	80.78	70.53	55.11	68.37
1844....	57.35	59.49	61.77	77.91	77.10	78.75	81.84	80.24	75.41	66.28	63.43	50.94	70.26	80.28	68.37	55.93	68.71
1845....	54.79	56.77	59.86	70.99	73.90	79.80	80.92	80.65	76.63	66.23	57.68	47.23	68.25	80.46	66.85	52.93	67.12
1846....	52.00	54.10	62.30	68.07	75.60	78.86	81.37	80.21	80.01	67.13	62.64	59.60	68.66	80.14	69.93	55.23	68.49
1847....	49.84	......	......	......	......	80.08	80.05	81.04	......	......	......	......	......	80.36	......	......	......
1848....	......	......	......	......	......	77.40	81.23	82.18	74.65	69.69	54.13	58.04	......	80.27	66.18	......	......
1849....	58.16	54.30	67.81	67.63	......	......	79.77	83.42	78.45	63.51	64.18	61.41	......	......	70.38	57.96	......
1850....	64.01	58.51	63.47	72.84	76.90	78.59	84.81	83.67	78.57	65.47	......	51.17	71.07	82.36	......	57.90	......
1851....	52.94	57.16	61.17	67.32	75.21	78.80	81.43	80.19	75.14	65.43	55.06	51.72	67.90	80.14	65.21	53.94	66.80
1852....	42.78	59.81	65.87	64.53	74.42	77.74	79.69	79.17	75.11	68.32	56.00	58.06	68.27	78.86	66.48	53.55	66.79
1853....	47.38	53.62	59.60	68.61	71.65	78.35	78.59	79.79	......	65.82	......	51.10	66.62	78.91	......	50.70	......
1854....	53.43	56.48	66.24	64.63	75.10	80.61	80.09	81.52	78.11	69.95	57.07	52.17	68.66	80.74	68.38	54.03	67.95
Mean 24 y'rs	53.47	55.02	61.93	69.30	75.60	80.56	81.81	81.26	77.14	67.58	59.90	54.15	68.94	81.21	68.21	54.21	68 14

FORT JESUP, LOUISIANA.

Latitude 31° 33′, *Longitude* 93° 32′. *Altitude* 80 ? *feet.*

1823....	51.00	43.33	60.66	71.57	77.10	77.87	83.04	83.21	75.95	69.81	58.45	57.40	69.78	81.37	68.07	50.58	67.45
1824....	58.98	54.25	63.92	64.44	76.55	84.81	85.93	83.87	77.98	66.03	57.94	56.61	68.30	84.90	67.32	56.61	69.28
1825....	52.69	59.83	64.67	66.97	77.75	80.98	82.79	85.11	77.56	63.77	57.10	45.11	69.80	82.96	66.14	52.54	67.86
1826....	46.82	57.76	68.49	70.23	77.91	79.82	85.45	83.98	76.07	68.75	60.28	52.83	72.21	83.08	68.37	51.80	68.86
1827....	51.05	62.85	60.33	69.54	72.22	81.45	83.62	82.96	81.55	67.17	60.29	57.65	67.36	82.68	69.67	57.18	69.22
1828....	55.64	58.86	61.19	64.97	74.94	82.79	83.33	82.11	73.45	67.75	59.43	54.57	67.03	82.74	66.88	56.36	68.25
1829....	51.79	45.27	53.08	62.34	74.31	80.55	81.20	79.35	77.28	68.56	55.63	53.09	63.24	80.37	67.16	50.05	65.20
1830....	50.44	50.58	62.01	64.42	70.82	79.30	82.93	83.08	77.27	70.10	59.29	48.12	65.75	81.77	68.89	49.71	66.53
1831....	41.43	45.37	59.43	66.07	72.75	80.93	81.09	76.58	73.53	62.74	53.76	38.67	66.08	79.53	63.34	41.82	62.69
1832....	46.54	55.26	58.29	67.74	73.94	78.76	82.29	80.99	75.73	64.76	53.33	55.34	66.66	80.68	64.61	52.71	66.16
1833....	55.79	53.85	55.87	67.44	75.07	81.15	83.95	83.82	78.63	61.85	56.70	53.10	66.13	82.97	65.73	54 25	67.27
1834....	44.95	60.61	62.15	69.83	73.61	82.88	82.06	82.12	72.95	69.07	61.55	50.15	68.53	82.35	67.86	51.90	67.66
1835....	50.21	43.64	55.34	63.44	70.76	80.53	79.58	80.68	73.66	64.77	53 92	52.37	63.18	80.26	64.12	48.74	64.07
1836....	50.74	54.14	55.08	67.85	70.57	76.67	80.35	78.58	75.69	59.84	49.61	46.58	64.50	78.53	62.05	50.49	63.89
1837....	45.21	50.36	55.73	62.57	71.50	79.66	80.44	80.44	74.27	67.56	63.65	51.50	63.27	80.18	68.49	49.02	65.24
1838....	51.12	42.79	61.27	69.12	68.54	80.94	81.00	80.07	74.27	64.44	52.17	45.83	66.31	80.67	63.63	46.58	64.30
1839....	52.63	50.36	59.71	60.59	73.30	81.85	81.25	83.51	78.53	73.03	55.46	48.85	64.53	82.20	69.01	50.61	66.58
1840....	50.49	57.38	64.52	71.30	73.87	80.08	82.06	83.30	76.39	70.07	55.03	50.59	69.90	81.81	67.16	52.82	67.92

FORT JESUP, LOUISIANA—Continued.

Latitude 31° 33′, *Longitude* 93° 32′. *Altitude* 80 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1841....	45.69	51.89	58.13	69.69	70.75	78.22	84.21	80.19	73.50	62.62	56.34	48.73	66.19	80.87	64.15	48.57	64.94
1842....	53.14	56.13	64.12	70.43	76.92	82.68	78.16	78.65	76.93	64.79	50.74	47.02	70.59	80.14	64.15	52.10	66.74
1843....	54.25	47.90	41.60	69.65	75.34	77.30	81.75	76.25	78.60	61.82	57.99	48.30	62.20	78.43	66.14	50.15	64.23
1844...	52.82	53.88	57.51	70.66	76.57	79.18	83.20	80.94	73.68	60.93	56.54	48.43	68.25	81.11	63.72	51.71	66.20
1845....	51.72	55.65	57.42	68.64	70.49	77.41	81.10	......	76.56	65.57	57.92	43.91	65.52	......	66.68	50 43	......
Mean 23 y'rs	50.63	52.69	59.45	67.37	73.72	80.25	82.22	81.35	76.09	65.90	56.66	49.68	66.85	81.27	66.22	51.00	66.34

FORT SABINE, LOUISIANA.

Latitude 29° 45′, *Longitude* 93° 50′. *At sea level.**

1837....	......	......	......	......	......	......	79.53	78.35	72.39	71.37	64.62	53.84	......	......	......	......	......
1838....	51.60	43.82	59.12	70.26	(68.54)	79.05	......	......	......	......	......	......	65.97	79.00	69.46	49.75	66.05

* The post was on the low shore of Sabine lake, eight miles from the Gulf of Mexico, southward, and surrounded by water and marsh lands.

FORT TOWSON, INDIAN TERRITORY.

Latitude 34° 00′, *Longitude* 95° 33′. *Altitude* 300 ? *feet.*

1832....	39.59	......	......	......	......	......	79.39	75.20	69.98	61.16	47.80	47.00	......	......	59.65	......	......
1833....	51.29	45.34	46.99	63.56	72.24	72.84	85.70	80.55	74.44	57.81	49.33	43.83	60.93	79.70	60.53	46.83	62.00
1834....	32.32	50.49	55.14	65.93	68.95	79.52	80.93	81.94	67.57	62.54	56.69	42.19	63.34	80.80	62.27	41.63	62.01
1835 ...	44.30	34.94	51.12	60.14	72.06	76.87	76.51	76.03	68.14	59.75	43.04	45.09	61.11	76.47	56.98	41.44	59.00
1836....	41.17	44.77	47.94	61.59	69.66	75.63	78.76	79.39	74.16	58.51	48.22	41.36	59.73	77.93	60.30	42.43	61.00
1837....	40.51	46.91	52.94	58.68	66.75	77.44	81.85	80.20	72.21	64.31	57.98	45.80	59.12	79.83	64.83	44.41	62.05
1838....	43.69	34.18	56.90	66.42	62.98	78.80	82.02	81.06	70.54	59.06	43.95	37.12	62.10	80.63	57.85	38.33	59.74
1839....	46.76	46.31	56.19	68.66	72.53	79.17	82.88	80.05	72.57	66.34	47.44	39.99	65.79	80.70	62.12	44.39	63.25
1840....	42.20	49.91	57.93	65.99	70.94	76.81	80.08	83.21	71.77	60.30	50.96	44.72	64.95	80.03	61.01	45.61	62.90
1841....	42.14	49.73	52.97	62.93	68.95	73.76	81.76	76.06	66.69	56.28	46.97	35.42	61.62	77.19	56.65	42.43	59.47
1842....	43.03	53.70	65.12	67.86	73.58	78.76	80.96	78.61	76.60	63.06	46.26	43.22	68.85	79.44	61.97	46.65	64.24
1843....	49.40	43.60	39.00	66.51	70.30	75.10	78.80	75.95	76.15	59.10	53.50	45.65	58.60	76.62	62.92	46.18	61.08
1844....	44.40	49.22	51.73	68.36	72.53	77.91	82.80	80.75	71.97	59.64	53.16	42.33	64.21	80.49	61.59	45.32	62.90
1845....	46.57	50.71	52.20	67.70	68.49	77.31	81.59	79.73	75.44	60.10	49.50	35.79	62.80	79.54	61.68	44.36	62.09
1846....	43.60	42.60	53.85	61.27	......	......	......	......	......	......	......	......	......	......	......	.....	......
1849....	......	......	......	......	......	76.11	78.18	79.16	74.26	59.11	56.53	42.00	......	77.82	63.30	......	......
1850....	46.10	47.13	53.48	59.81	67.22	76.06	80.57	82.49	75.28	63.12	51.71	39.29	60.17	76.37	63.37	44.14	61.01
1851....	44.31	44.88	56.25	60.38	71.91	78.30	82.23	82.54	78.75	63.25	47.60	......	62.51	81.02	63.20	......	......
1852....	......	......	......	......	......	......	......	......	68.17	66.05	48.80	43.68	......	......	58.34	......	......
1853....	41.78	43.75	51.84	64.24	67.25	78.02	79.69	81.40	73.40	60.27	54.95	42.48	61.11	79.70	62.87	42.67	61.59
1854....	36.32	49.29	59.55	61.90	.....	......	......	......	......	......	......	......	......	......	......	......	......
Mean 20 y'rs	43.14	45.97	53.40	64.00	69.77	76.97	80.82	79.69	72.53	61.04	50.24	42.65	62.39	79.16	61.27	43.92	61.69

FORT WASHITA, INDIAN TERRITORY.

Latitude 34° 14′, *Longitude* 96° 38′. *Altitude* 645 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1843....	47.50	41.70	36.50	65.30	69.70	76.70	80.30	77.00	75.40	58.90	52.40	47.20	57.17	78.00	62.23	45.47	60.72
1844....	45.02	51.16	53.41	68.27	73.41	77.13	82.39	82.54	71.20	60.64	54.99	45.91	65.04	80.69	62.28	47.36	63.84
1845....	47.29	53.64	53.17	69.18	69.25	78.38	84.31	79.18	76.06	60.71	49.52	39.08	63.87	80.62	62.10	46.67	63.31
1846....	47.80	44.90	55.94	63.46	72.58	74.79	81.76	81.09	76.18	65.09	55.09	48.37	63.99	79.88	65.44	47.02	64.08
1847....	35.83	45.60	49.16	67.72	66.90	76.34	79.47	78.48	73.46	65.52	51.16	44.00	60.96	78.10	63.38	41.81	61.06
1848 ...	47.44	51.72	55.95	58.59	74.82	75.37	79.74	81.08	73.62	63.55	44.87	32.03	63.12	78.73	60.68	43.73	61.56
1849....	36.96	44.90	58.66	61.85	69.33	76.04	77.83	79.88	73.85	60.74	57.65	41.49	63.28	77.92	64.08	41.12	61.60
1850....	47.06	46.29	52.96	59.50	66.31	74.62	81.01	83.31	77.04	65.53	53.57	37.16	59.59	79.64	65.38	43.50	62.03
1851....	43.93	44.18	56.88	60.84	72.39	79.56	82.41	84.71	80.25	61.72	46.70	42.24	63.37	82.23	62.89	43.45	62.98
1852....	37.71	49.41	55.20	58.05	69.50	73.51	78.62	78.17	69.77	64.90	47.68	41.37	60.91	76.76	60.78	42.83	60.32
1853....	42.05	42.37	51.44	63.94	65.46	76.90	78.41	81.50	74.08	60.78	54.18	42.63	60.28	78.94	63.01	42.35	61.14
1845....	36.76	48.94	60.41	61.43	69.80	75.48	83.13	83.40	77.20	66.38	51.56	43.70	63.88	80.67	65.05	43.13	63.18
Mean 12 y'rs	42.91	47.07	53.31	63.18	69.98	76.23	80.78	80.86	74.84	63.29	51.61	42.43	62.16	79.29	63.25	44.14	62.21

FORT SMITH, ARKANSAS.

Latitude 35° 23′, *Longitude* 94° 29′. *Altitude* 460 *feet.*

1842....	42.99	44.77	61.50	63.54	69.64	74.78	77.19	74.56	72.49	57.75	41.36	38.34	64.89	75.51	57.20	42.03	59.91
1843....	41.70	36.83	31.53	60.23	67.72	74.38	78.79	74.83	73.71	54.14	47.88	40.25	53.16	76.00	58.58	39.59	56.83
1844....	38.24	45.77	48.12	66.58	71.15	76.71	81.13	76.82	68.06	56.20	48.65	37.94	61.95	78.22	57.69	40.65	59.61
1845....	43.49	47.39	50.05	68.82	68.50	78.61	82.47	78.27	72.55	55.34	44.98	31.38	62.46	79.78	57.62	40.75	60.15
1846....	39.82	38.70	52.46	62.56	71.24	73.50	80.65	78.80	75.73	61.55	51.21	46.47	62.09	77.65	62.83	41.66	61.06
1847....	34.43	40.17	47.96	65.71	65.76	75.71	77.86	75.88	71.01	62.34	47.75	42.40	59.80	76.48	60.37	38.87	58.87
1848....	44.87	48.07	52.69	59.61	72.61	75.07	79.01	79.45	68.74	60.93	42.93	34.01	61.64	77.84	57.53	42.32	59.83
1849....	35.78	40.91	57.65	59.46	64.43	76.80	79.86	80.36	74.32	60.82	59.60	40.90	60.51	79.01	64.71	39.20	60.86
1850....	46.50	51.51	57.78	58.51	67.27	76.62	......	......	......	......	......	......	62.22	......	......	......	......
1852....	......	......	......	58.92	67.91	72.74	73.07	76.51	69.06	63.58	46.53	39.60	......	74.10	59.72	......	......
1853....	40.20	41.67	50.66	63.97	64.93	76.21	77.93	80.57	71.53	58.79	53.14	39.80	59.85	78.24	61.15	40.56	59.95
1854....	33.92	47.01	57.01	60.62	67.51	75.48	83.15	82.70	77.38	64.70	47.97	40.83	61.71	80.44	63.35	40.59	61.52
Mean 12 y'rs	40.18	43.89	51.58	62.38	69.91	75.55	79.19	78.07	72.23	59.65	48.36	39.27	61.29	77.60	60.08	41.11	60.02

FORT GIBSON, INDIAN TERRITORY.

Latitude 34° 47′, *Longitude* 95° 10′. *Altitude* 560 *feet.*

1827....	......	......	......	......	......	......	81.98	82.98	78.58	66.66	57.00	46.68	......	......	67.41	......	......
1828....	44.26	47.63	54.74	59.06	71.36	81.16	81.75	82.04	69.72	66.02	55.39	47.86	61.72	81.65	63.71	46.58	63.34
1829....	44.52	28.65	48.32	59.51	74.16	78.09	80.76	82.92	75.08	62.67	50.14	50.29	60.66	80.59	62.63	41.15	61.26
1830....	47.64	47.48	57.46	65.26	69.95	80.62	81.95	84.88	79.04	69.15	56.84	40.46	64.22	82.48	68.34	45.19	65.06
1831....	30.14	34.54	53.70	63.13	68.09	75.34	82.71	76.66	70.69	60.23	50.34	31.89	61.64	78.24	60.42	32.19	58.12
1832....	41.81	41.92	55.21	64.25	69.67	77.31	80.25	77.38	72.20	62.94	50.43	47.43	63.04	78.31	61.86	43.72	61.76
1833....	47.52	44.42	50.47	63.93	70.93	76.36	81.65	80.70	75.43	57.50	52.28	43.82	61.78	79.57	61.74	45.25	62.08
1834....	28.17	50.30	52.54	67.88	72.31	79.81	83.06	88.22	73.87	65.81	54.97	41.06	64.24	83.70	64.88	39.84	63.16
1835....	42.33	32.74	51.19	60.17	71.48	78.55	77.93	77.89	70.19	61.06	43.19	43.64	60.95	78.12	58.15	39.57	59.19
1836....	40.48	43.06	46.14	65.44	71.26	74.78	79.45	80.12	74.54	56.09	47.83	39.56	60.95	78.12	59.49	41.03	59.90

FORT GIBSON, INDIAN TERRITORY—Continued.

Latitude 34° 47′, *Longitude* 95° 10′. *Altitude* 560 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1837....	36.92	44.54	50.20	55.74	66.36	76.68	83.91	82.91	72.24	65.44	59.19	43.52	57.43	81.17	65.62	41.66	61.47
1838....	40.99	28.31	53.70	65.70	62.28	79.21	83.07	83.18	74.42	56.40	40.37	33.65	60.56	81.82	57.06	34.32	58.44
1839....	43.69	43.30	53.68	68.96	71.55	75.83	82.79	82.53	74.64	67.21	47.24	39.73	64.73	80.38	63.03	42.24	62.59
1840....	36.82	46.41	54.51	63 49	69.10	77.15	77.74	78.36	69.33	59.78	45.92	42.22	62.37	77.75	58.34	41.82	60.07
1841....	35.27	41.27	52.14	61.85	68.14	75.53	81.95	80.04	69.72	56.70	51.35	42.09	60.71	79.17	59.26	39.54	59.67
1842....	45.90	46.57	62.22	64.13	70.12	73.86	77.12	75.06	74.36	60.67	43.86	41.12	65.49	75.35	59.63	44.53	61.25
1843....	43.30	38.17	39.50	62.40	66.93	74.50	76.83	74.17	78.20	56.65	50.25	45.20	56.28	75.15	61.70	42.22	58.84
1844....	40.67	47.31	50.45	66.30	69.89	75.77	80.00	77.40	68.67	57.91	50.41	41.73	62.21	77.72	59.00	43.24	60.54
1845....	46.24	50.65	50.54	68.46	67.02	77.25	83.30	78.94	75.58	58.25	47.12	34.40	62.01	79.83	60.32	43.76	61.48
1846....	42.73	38.44	52.61	61.87	70.00	71.32	79.74	78.95	74.50	62.44	52.59	45.93	61.49	76.67	63.18	42.37	60.93
1847....	33.55	42.73	47.16	66.01	65.52	72.75	77.92	74.52	70.29	61.56	52.57	41.16	59.56	75.06	61.47	39.15	58.81
1848....	45.83	49.11	53.13	57.30	70.72	75.83	77.95	76.68	68.00	62.39	43.81	30.48	60.38	76.82	58.07	41.81	59.27
1849....	33.19	39.65	55.84	60.46	68.87	75.77	77.79	77.30	72.59	56.45	54.61	36.69	61.72	76.95	61.22	36.51	59.10
1850....	42.15	42.39	49.42	55.35	66.63	76.54	81.00	83.78	75.45	62.48	50.52	36.01	51.13	80.44	62.85	40.51	60.23
1851....	41.91	42.27	54.09	58.23	72.26	77.16	82.50	84.80	78.32	60.76	44.34	36.81	61.53	81.49	61.14	40.33	61.12
1852....	34.82	47.03	54.00	58.80	70.13	74.31	81.60	76.97	69.36	63.96	44.95	37.39	60.97	77.62	59.43	39.74	59.44
1853....	39.63	39.90	49.40	63.31	64.79	78.11	80.23	82.36	73.31	59.80	53.11	41.22	59.17	80.23	62.07	40.25	60.43
1854....	33.72	46.38	56.57	60.49	67.61	75.74	84.62	85.20	79.61	66.67	47.30	41.50	61.56	81.85	64.53	40.53	62.12
Mean 27½ y'rs.	40.15	42.41	52.19	61.04	69.15	76.82	80.76	80.24	73.50	61.56	49.92	40.84	61.04	79.41	61.66	41.13	60.81

FORT SCOTT, MISSOURI.

Latitude 37° 45′, *Longitude* 94° 35′. *Altitude* 1000? *feet.*

1843....	37.11	28.05	24.55	53.95	63.50	71.95	75.45	73.40	70.70	50.90	42.35	37.90	47.33	73.60	54.65	34.35	52.48
1844....	30.55	36.70	45.34	63.27	64.36	72.07	80.27	74.24	62.85	51.84	42.00	35.25	57.66	75.53	52.23	34.17	54.90
1845....	39.94	42.71	45.85	62.50	65.01	72.23	78.34	76.02	69.20	52.23	39.61	25.37	57.79	75.53	53.68	36.01	55.75
1846....	37.33	29.93	46.05	57.34	68.97	69.26	78.40	75.85	70.09	54.83	44.91	37.31	57.45	74.50	56.61	34.86	55.85
1847....	22.70	33.32	37.17	57.88	61.57	70.93	76.06	72.23	67.38	56.27	41.35	33.89	52.21	73.07	55.00	29.97	52.56
1848....	37.41	39.68	45.21	53.81	68.53	72.71	74.94	76.08	64.77	56.42	35.28	21.95	55.85	74.58	52.16	33.01	53.90
1849....	22.91	30.10	49.03	53.17	63.47	73.60	75.12	74.58	68.79	52.64	50.14	29.38	55.22	74.43	57.19	27.46	53.07
1850....	34.66	35.59	42.27	48.53	61.87	73.47	79.34	81.24	71.63	58.20	46.09	27.41	50.89	78.02	58.64	32.55	55.02
1851....	33.71	36.32	48.14	53.46	69.50	73.40	78.23	76.63	73.59	58.11	39.02	31.30	57.03	76.09	56.90	33.78	55.95
1852....	28.45	39.11	47.82	53.28	67.62	71.46	76.03	75.07	67.17	61.40	38.40	31.18	56.24	74.18	55.65	32.91	54.74
1853....	35.24	33.30	43.00	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean 10 y'rs	32.91	34.98	43.13	55.72	65.48	72.11	77.22	75.53	68.62	55.23	41.91	31.09	54.78	74.95	55.27	32.99	54.50

JEFFERSON BARRACKS, MISSOURI.

Latitude 38° 28′, *Longitude* 90° 15′. *Altitude* 472 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1827....	32.09	44.55	50.98	61.22	65.52	73.62	80.15	81.67	72.95	58.98	50.40	39.69	59.24	78.48	60.78	38.58	59.27
1828....	37.17	42.82	49.43	55.85	70.03	80.69	79.41	81.56	67.89	50.75	50.55	44.85	58.44	80.55	56.40	41.61	59.25
1829 ...	36.31	20.52	42.60	60.17	73.73	77.21	76.82	76.97	65.80	56.87	37.11	42.31	58.83	77.00	53.26	33.05	55.53
1830....	32.79	37.55	48.00	61.53	66.36	75.68	79.78	78.74	67.63	60.74	51.43	42.05	58.63	78.07	59.93	37.80	58.61
1831....	21.53	27.22	43.87	......	......	......	75.46	71.96	63.05	53.73	40.35	18.54	......	......	52.38	22.43	......
1832....	31.10	31.17	50.35	58.88	63.85	80.55	76.53	73.94	66.04	58.60	44.99	36.88	57.69	77.01	56.54	33.05	56.07
1833....	38.13	35.89	42.76	61.31	70.68	73.38	81.24	79.28	71.21	52.13	44.83	38.30	58.25	77.97	56.06	37.44	57.43
1834....	21.54	44.04	45.29	59.81	67.56	75.91	81.60	81.27	64.98	54.98	45.21	32.45	57.55	79.59	55.06	32.68	56.22
1835....	33.64	21.75	42.02	54.05	69.73	74.47	74.41	73.10	61.42	59.26	40.79	35.00	55.27	73.99	53.82	30.13	53.30
1836....	......	......	......	......	......	......	......	......	.....	46.79	39.25	29.17	......	......	......	......	......
1837....	28.52	37.37	40.73	49.15	61.70	70.52	77.05	75.63	65.03	......	......	......	......	74.40	......	......	......
1838....	......	......	......	52.56	57.57	73.53	79.77	77.83	67.22	51.82	32.43	25.61	......	77.04	50.52	......	......
1839....	37.06	36.95	43.80	62.11	62.82	69.10	73.81	72.40	65.76	63.95	38.03	28.02	56.24	71.77	55.91	30.68	53.65
1840....	24.96	39.48	44.23	52.73	......	76.44	76.16	76.39	56.02	55.00	41.66	34.82	......	76.33	53.89	33.09	......
1841....	27.53	30.22	44.57	53.16	65.61	74.61	79.86	75.05	67.75	53.70	44.33	34.59	54.45	76.51	55.26	30.78	54.25
1842....	38.70	37.02	58.72	64.81	65.12	71.09	75.09	71.79	71.24	59.64	37.67	34.38	62.88	72.06	56.18	36.70	57.10
1843....	36.16	23.78	25.50	52.66	65.34	72.86	76.58	74.56	70.00	49.56	42.61	37.12	47.83	74.67	54.06	32.35	52.23
1844....	31.32	37.72	44.03	62.91	65.20	70.87	77.58	73.78	64.99	52.78	44.05	36.52	57.38	77.78	53.94	35.19	56.07
1845....	39.13	43.05	46.32	65.63	66.86	77.62	79.85	76.50	70.40	54.45	41.58	25.03	59.60	77.99	55.48	35.74	57.20
1846....	37.78	30.02	46.85	59.35	69.65	69.32	78.42	77.68	72.93	53.39	45.08	38.59	58.62	75.14	57.80	35.46	56.76
1847....	.....	......	37.57	......	......	69.60	77.41	......	67.86	......	......	31.64	......	......	......	......	......
1848....	38.49	40.99	42.42	56.61	68.58	71.48	72.51	73.97	63.83	54.46	37.98	31.68	54.87	75.99	52.09	37.05	55.00
1849....	28.06	31.18	49.46	55.28	65.15	73.53	75.19	74.87	67.41	52.24	49.71	29.38	56.63	74.53	56.79	29.54	54.37
1850....	34.04	35.36	42.51	48.54	62.27	76.11	81.44	80.18	69.57	57.46	47.28	31.04	51.14	79.24	58.09	33.48	55.48
1851....	35.48	38.29	48.13	50.83	68.27	73.62	79.53	76.05	73.53	57.52	41.09	29.78	55.74	76.40	57.38	34.52	56.01
1852....	28.20	38.33	48.25	53.31	67.27	71.76	77.60	73.60	67.81	63.90	39.41	35.50	56.27	74.32	57.04	34.01	55.41
1853....	36.30	33.73	44.37	57.42	64.46	78.48	76.66	77.07	70.84	53.81	49.98	34.51	55.42	77.40	58.21	34.85	56.47
1854....	28.48	40.04	48.34	56.79	68.44	74.78	85.80	82.12	75.89	61.19	44.21	36.02	57.86	80.90	60.43	34.85	58.51
Mean 26 y'rs	32.58	35.16	45.08	57.06	66.32	74.11	78.00	76.46	68.07	55.68	43.15	33.81	56.15	76.19	55.63	33.85	55.46

ST. LOUIS ARSENAL, MISSOURI.

Latitude 38° 40′, *Longitude* 90° 05′. *Altitude* 450 *feet.*

1843....	......	22.54	25.28	56.03	66.79	74.80	79.83	76.82	72.59	53.39	41.74	35.93	49.37	77.15	55.91	31.54	53.49
1844....	31.44	36.57	42.11	64.83	66.28	75.29	81.63	74.84	66.75	51.04	44.45	36.43	55.74	77.25	54.08	34.81	55.97
1845....	38.69	40.51	44.34	60.99	61.71	73.50	79.32	75.85	75.03	53.95	40.55	24.13	55.68	76.22	56.51	34.44	55.71
1846....	37.20	27.93	45.71	54.91	68.97	71.11	79.95	77.87	72.38	54.05	42.78	37.46	56.53	76.31	56.40	34.20	55.86
1847....	24.64	33.41	38.06	56.65	62.19	72.64	78.60	74.10	67.85	52.88	43.63	31.30	52.30	75.11	54.61	29.78	52.95
1848....	35.57	37.90	42.16	51.08	66.14	73.10	76.65	74.67	62.96	54.23	37.25	30.20	53.13	74.81	51.48	34.56	53.49
1849 ...	25.12	28.44	46.40	53.36	63.96	76.69	75.04	73.71	66.62	50.30	49.02	28.96	54.57	75.14	65.31	27.51	55.63
1850....	34.03	33.76	41.33	48.55	61.47	75.61	78.88	77.89	67.31	54.14	44.72	29.85	50.45	77.79	55.39	31.24	53.72

ST. LOUIS ARSENAL, MISSOURI—Continued.

Latitude 38° 40′, *Longitude* 90° 05′. *Altitude* 450 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1851....	32.56	36 31	46.32	50.61	66.49	72.41	78.35	77.09	71.71	55.13	39.39	29.21	54.47	75.95	55.41	32.69	54.63
1852....	27.84	35.28	46.79	52.00	65.93	72.40	78.12	73.55	67.40	59.91	38.48	33.37	54.90	74.69	55.26	32.16	54.25
1853....	33.25	31.88	42.95	56.53	64.58	78.13	76.00	76.27	69.01	51.70	46.96	32.14	54.69	76.80	55.89	32.42	54.95
1854....	25.47	36.66	46.10	55.41	66.36	74.75	82 25	81.30	75.38	59.70	41.58	34.34	55.96	79.43	58.89	32.16	56.61
Mean 12 y'rs	31.44	33.43	42.30	55.08	65.07	74.20	78.22	76.16	69.58	54.20	42.55	31 93	54.15	76.19	55.44	32.27	54.51

Mean for sixteen years at St. Louis, 1833 to 1848, by Dr. Engelmann, 55.27 degrees.

NEWPORT BARRACKS, KENTUCKY.

Latitude 39° 05′, *Longitude* 84° 29′. *Altitude* 500 *feet.*

1847....	......	......	......	......	......	......	75.60	75.28	70.51	55.04	46.52	33.67	......	......	57.36	......	.....
1848....	36.76	37.00	43.25	55.54	69.08	73.88	75.50	75.00	63.75	54.81	39.98	41.27	56.29	74.79	52.85	38.34	55.57
1849....	33.08	31.08	49.00	54.50	65.20	76.34	75.19	73.50	66.77	55.25	51.15	32.14	56.23	75.01	67.72	32.10	57.76
1850....	37.47	35.54	42.44	51.16	59.32	74.64	79.59	76.50	66.87	54.40	47.18	......	51.30	76.91	56.15	......	......
1851....	36.42	42.87	48.55	53.32	67.13	72.46	76.30	75.16	69.77	55.48	43.07	31.28	56.33	74.64	56.11	36.86	5[illegible].98
1852....	27.26	37.95	46.62	51.01	64.37	68.97	76.74	72.20	65.79	60.44	41.92	40.15	54.00	72.64	56.05	35.12	54.45
1853....	35.52	34.55	41.60	55.00	63.93	76.00	73.41	74.43	67.86	51.35	45.98	34.88	53.51	74.61	55.06	34.98	54.54
1854....	31.75	39.60	46.74	53.20	64.00	72.13	79.54	78.13	74.34	59.75	41.89	35.37	54.65	76.60	58.66	35.57	56.37
Mean 7½ y'rs	34.04	36.94	45.46	53.39	64.72	73.49	76.48	75.02	68.21	55.81	44.71	34.84	54.52	75.00	56.24	35.27	55.26
Mean 18 y'rs	33.50	34.10	43.40	54.50	63.50	71.10	76.30	73.70	65.50	53.00	42.30	33.80	53.80	73.70	53.60	33.80	53.70

The last summary is of observations at Cincinnati by Professor Ray.

DETROIT, MICHIGAN.*

Latitude 42° 20′, *Longitude* 82° 58′. *Altitude* 580 *feet.*

1836....	......	......	......	44.97	56.76	63.39	67.15	60.52	58.13	39.96	33.12	24.79	......	63.69	43.74	.....	......
1837....	21.57	24.29	29.84	38.31	51.68	62.74	66.22	65.41	58.74	46.95	39.59	26.63	39.94	64.79	48.43	24.16	44.33
1838....	27.72	12.11	38.77	39.68	50.62	68.12	73.78	68.67	59.51	62.66	29.31	17.60	43.02	70.19	43.83	19.14	44.05
1839....	25.69	27.38	32.77	50.74	59.85	65.02	72.67	66.67	55.63	57.46	38.04	28.03	47.79	68.12	50.38	27.03	48.33
1840....	20.37	33.28	35.19	48 14	60.78	66.75	67.86	66.57	56.89	48.43	37.80	28.39	48.04	67.06	47.71	27.35	47.54
1841....	25.96	25.76	31.47	42.04	51.89	67.16	68.06	68.16	61.81	45.64	36.83	31.31	41.80	68.13	48.76	27.68	46.57
1842....	32.67	31.74	44.89	49.17	54.13	60.36	66.39	67.21	61.00	51.14	34.93	29.57	49.40	64.65	49.02	31.30	48.59
1843....	30.48	19.25	22.45	46.83	54.35	64.33	66.00	66.08	65.48	44.62	34.95	31.35	41.21	65.47	48.35	27.03	45.51
1844....	23.43	29.37	34.90	54.57	58.49	63.98	70.73	66.67	62.25	47.27	38.11	30.03	49.32	67.13	49.21	27.61	48.32
1845....	30.07	29.92	39.70	48.60	55.40	66.17	70.92	71.92	59.70	48.85	35.50	21.95	47.90	69.67	48.01	27.31	48.22
1846....	29.32	24.62	36.85	80.03	62.92	66.27	......	......	......	......	......	......	49.95	......	......	......	......
1849....	24.69	26.03	39.16	45.69	56.11	69.85	72.60	69.84	63.81	49.71	46.77	26.95	46.96	70.76	53.43	25.89	49.26
1850....	30.77	29.65	35.37	44.31	55.04	69.63	74.59	71.69	60.64	49.58	44.21	25.98	44.97	71.97	51.46	28.80	49.30
1851....	28.47	32.66	39.66	44.69	56.32	......	......	......	......	......	......	......	46.79	......	......	......	......
Mean 13 y'rs	27.01	26.62	35.40	46.26	56.02	65.62	69.71	67.47	60.05	47.69	38.26	26.88	45.89	67.60	48.67	26.84	47.25

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* At Detroit Arsenal, Dearbornville, ten miles west of the city, to the close of 1839; subsequently at Detroit Barracks.

FORT GRATIOT, MICHIGAN.

Latitude 42° 55′, *Longitude* 82° 23′. *Altitude* 598 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1830....	......	......	......	52.00	54.40	61.93	73.59	71.23	62.26	55.30	45.56	28.03	......	68.92	54.37	......	......
1831...	21.26	20.17	38.65	44 22	56.07	70.15	72.03	70.61	59.38	52.23	38.40	15.82	46.31	70.93	50.00	19.08	46.58
1832....	25.16	21.09	35.29	43.84	53.57	67.85	70.99	68.98	62.73	53.96	39.10	31.97	44.23	69.37	51.95	26.17	47.93
1833....	29.65	24.80	31.67	48.19	57.70	62.08	70.40	68.90	61.95	47.04	39.98	34.92	45.85	67.13	49.66	29.79	48.11
1834....	21.39	34.30	34.96	47.30	58.44	64.10	75.16	70.79	60.77	47.94	40.27	30.36	46.90	70.02	49.66	28.68	48.81
1835....	28.49	23.06	32.95	44.60	58.07	65.80	68.55	66.87	55.94	52.96	38.66	26.46	45.21	67.07	49.19	26.00	46.87
1836....	26.63	17.58	24.57	39.61	52.29	58.98	68.08	61.15	58.68	41.00	36.58	27.14	38.82	62.74	45.42	23.78	42.69
1837....	23.21	25.03	28.98	36.74	47.70	......	......	......	......	......	......	......	37.81	......	......	......	......
1839....	......	......	......	......	......	......	69.64	65.15	55.32	55.43	34.24	26.09	......	......	48.33	......	......
1840....	16.71	31.42	34.75	46.26	58.69	65.87	68.15	69.32	63.95	40.87	3 .59	24.61	46.57	67.78	46.80	24.25	46.35
1841....	23.70	20.31	30.87	40.32	50.18	64.20	71.60	69.65	63.27	44.61	37.48	31.18	40.46	68.48	48.45	25.05	45.61
1842....	30.26	29.46	39.28	48.05	51.36	58.41	64.84	66.52	58.23	50.10	34.71	27.93	46.23	63.26	47.68	29.22	46.60
1843....	29.18	18.46	19.96	39.94	50.00	60.46	63.32	67.81	63.50	44.90	34.80	31.90	36 63	63.86	47.73	26.51	43.68
1844....	22.57	28.82	33.62	53.40	58.18	60.97	66.82	65.25	60.43	45.56	36.24	29.79	48.40	64.35	47.41	26.39	46.64
1845....	28.46	29.43	38.49	44.49	52.18	63.18	69.52	69.69	58.81	47.94	36.05	20.64	45.05	67.46	47.60	26.18	46.57
1846....	26.53	22.96	34.63	45.36	56.54	62.15	......	......	......	......	......	......	45.51	......	......	......	......
1849....	......	......	......	......	......	......	70.33	65.87	60.00	48.58	45.25	25.58	......	......	51.24	......	......
1850....	29.43	26.89	29.62	41.71	48.91	66.87	71.25	68.67	57.48	48.08	42.25	24.42	40.08	68.93	39.23	26.91	43.79
1851....	25.67	29.55	35.09	40.83	53.16	62.00	67.56	64.34	62.46	50.76	35.14	24.63	43.02	64.63	49.45	26.62	45.93
1852....	21.90	26.17	31.01	36.61	50.89	......	......	......	......	......	......	......	39.51	......	......	......	......
Mean 17½ y'rs.	25.30	25.26	33.16	44.08	53.80	63.44	69.55	67.10	60.31	48.66	38.24	26.55	43.68	66.70	49.07	25.70	46.29

FORT MACKINAC, MICHIGAN.

Latitude 45° 51′, *Longitude* 84° 33′. *Altitude* 728 *feet.*

1825....	......	......	......	......	......	......	......	......	55.26	47.92	38.60	20.70	......	....	47.26	......	......
1826....	18.93	17.66	26.32	32.85	50.59	61.14	66.74	63.29	54.84	48.63	35.60	23.41	36.59	63.72	46.36	20.00	41.87
1828....	21.14	20.06	28.17	35.96	47.60	57.81	61.53	63.85	55.18	46.48	36.12	26.25	37.24	61.06	45.92	22.48	41.67
1829....	19.87	11.44	22.78	37.09	55.52	60.95	63.89	65.95	53.20	47.56	29.60	29.79	38.46	63.60	43.45	20.10	41.40
1830....	16.28	21.45	28.51	43.62	46.31	56.44	70.12	64.88	53.16	49.76	43.40	24.76	39.48	63.81	48.77	20.83	43.22
1831....	16.48	14.97	30.88	37.58	48.27	61.54	64.75	65.56	53.02	45.62	34.14	13.94	38.91	63.95	44.20	15.13	40.55
1832....	18.89	8.00	27.94	38.22	44.38	59.08	61.69	63.54	54.38	46.73	31.85	27.01	36.85	61.44	44.32	17.30	39.98
1833....	21.54	16.29	23.16	38.97	48.97	53.60	62.05	64.14	55.66	41.73	35.36	32.36	37.03	59.93	44.25	23.40	41.15
1834....	16.42	24.64	26.92	39.53	44.69	53.19	65.57	65.39	54.87	41.08	34.95	21.75	37.05	61.38	43.63	20.94	40.78
1835....	22.87	10.08	24.80	36.01	47.73	59.45	62.83	62.27	50.25	43.55	29.53	19.88	36.18	61.52	41.11	17.61	39.10
1836....	18.22	12.33	15.54	32.42	46.44	53.77	63.82	57.72	50.79	37.73	34.11	22.55	31.47	59.10	40.88	17.70	37.29
1837....	17.44	17.39	20.07	......	......	......	......	......	......	......	......	......	......	......	......	.....	......
1842....	26.49	24.01	33.42	40.93	45.30	51.61	61.62	65.90	55.90	47.38	32.50	24.59	39.88	59.71	45.26	25.03	42.47
1843....	25.40	9.25	16.87	36.56	44.38	56.56	59.82	64.98	57.70	42.29	30.60	27.75	32.60	60.45	43.53	20.80	39.34
1844....	16.23	23.61	26.29	42.42	48.80	54.10	63.64	62.64	55.52	43.46	34.81	24.44	39.17	60.13	44.60	21.43	41.33
1845....	22.67	22.53	30.01	36.33	47.78	56.60	64.15	64.45	53.76	44.10	31.78	19.86	38.04	61.73	43.21	21.69	41.17
1846....	23.92	18.00	30.14	38.32	50.41	58.77	66.00	68.07	61.25	42.64	37.97	25.82	39.62	64.28	46.95	22.58	43.36
1847....	13.14	15.56	19.60	33.32	45.70	53.12	65.41	60.97	52.19	43.69	32.60	22.57	32.87	59.83	42.83	17.09	38.16
1848....	20.86	20.69	23.21	37.31	48.14	......	......	......	......	......	......	20.73	36.22	......	......	20.76	......

FORT MACKINAC, MICHIGAN—Continued.

Latitude 45° 51′, *Longitude* 84° 33′. *Altitude* 728 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	13.98	12.36	28.10	33.30	46.06	58.90	66.93	61.64	50.15	44.10	41.53	20.17	35.82	62.49	45.26	15.50	39.77
1850....	23.66	23.09	25.67	33.92	48.10	61.30	68.00	67.25	58.91	45.22	36.14	19.58	35.90	65.52	46.76	22.11	42.57
1851....	19.47	25.36	30.21	36.26	44.79	57.61	66.75	63.37	58.85	49.55	27.71	16.57	37.08	62.38	45.37	20.47	41.33
1852....	15.80	20.14	24.17	35.73	......	.....	64.47	65.65	55.13	45.97	32.37	25.46	......	......	44.49	20.47	......
1853....	22.85	17.68	27.12	38.13	46.76	56.00	63.81	65.06	57.22	44.24	33.75	23.66	37.34	61.62	45.07	21.40	41.36
1854....	13.09	15.89	26.40	37.06	47.62	59.96	67.12	62.47	59.72	49.61	33.66	21.41	37.03	63.18	47.66	16.80	41.17
Mean 24 y'rs	19.37	17.60	25.68	37.03	47.47	57.31	64.55	64.05	55.08	45.17	34.30	23.12	36.73	61.97	43.85	20.03	40.65

FORT DEARBORN, CHICAGO, ILLINOIS.

Latitude 41° 52′, *Longitude* 87° 35′. *Altitude* 591 *feet.*

1832....	......	......	......	......	......	......	71.25	71.95	63.40	54.43	40.10	33.38	......	......	52.64	......	......
1833....	29.92	27.81	33.59	50.88	60.71	64.25	73.00	70.83	61.55	45.91	40.00	34.29	48.39	69.35	50.15	30.67	49.64
1834....	13.51	35.06	36.94	47.75	55.25	63.54	74.87	71.66	60.58	46.69	40.54	29.79	46 98	70.02	49.27	26.12	43.10
1835....	28.32	14.15	32.27	42.92	55.22	63.71	67.66	65.92	54.76	48.33	34.35	25.03	43.80	65.76	45.81	22.50	44.47
1836....	22.63	21.94	26.41	42.77	54.12	59.18	67.09	62.41	57.20	47.24	34.51	24.37	41.10	62.89	46.32	22.98	43.32
Mean 4½ y'rs	23.60	24.74	32.30	46.08	56.32	62.67	70.77	68.55	60.10	48.54	37.90	29.37	44.90	67.33	48.85	25.90	46.75

FORT BRADY, MICHIGAN.

Latitude 46° 30′, *Longitude* 84° 43′. *Altitude* 600 *feet.*

1823....	22.10	9.47	20.48	39.69	46.96	59.77	68.44	64.17	53.20	42.49	29.72	19.69	35.71	64.13	41.80	17.09	39.68
1824....	19.95	12.65	25.19	39.34	48.54	60.07	64.56	62.87	57.86	42.61	31.35	26.45	37.69	62.50	43.94	19.68	40.95
1825....	18.73	25.62	30.97	41.54	52.55	61.96	67.39	67.99	54.84	45.70	36.77	17.48	41.69	65.78	45.77	20.61	43.46
1826....	17.62	16.53	25.37	32.86	54.03	62.16	......	......	......	45.37	33.44	21.93	37.42	......	......	18.69	......
1827....	17.36	22.73	25.85	39.39	49.92	59.68	63.60	63.57	58.87	45.12	31.15	20.33	38.39	62.28	45.05	20.14	41.46
1828....	18.43	20.33	28.73	39.35	52.80	61.23	67.20	64.86	54.85	45.53	34.50	23.74	40.29	64.43	44.96	20.83	42.63
1829....	16.46	9.83	23.16	38.21	55.20	59.76	......	......	......	47.64	28.81	28.56	38.86	......	......	18.28	......
1830....	13.19	18.67	27.92	46.18	48.48	59.35	71.00	62.33	55.22	49.50	44.08	24.66	40.86	64.23	49.60	18.84	43.48
1831....	15.43	16.86	33.72	39.19	51.56	62.49	65.11	65.75	53.76	46.19	34.97	12.39	41.49	64.45	44.97	14.89	41.45
1832....	18.21	9.55	28.88	40.96	48.55	62.69	69.55	63.13	55.41	49.60	32.50	24.16	39.46	65.12	45.84	17.31	41.93
1833....	17.74	14.01	23.35	40.63	54.15	57.56	62.93	64.36	54.55	39.84	33.05	33.96	39.38	61.62	42.48	21.90	41.34
1834....	14.80	21.24	27.70	40.68	51.59	56.82	67.98	66.38	53.10	40.37	34.54	18.76	39.99	63.73	42.67	18.27	41.16
1835 ...	21.50	10.06	25.14	38.34	52.37	61.65	64.29	62.49	51.69	43.88	30.55	19.00	38.62	62.81	42.04	16.85	40.08
1836....	17.72	11.38	16.12	33.68	48.73	58.57	62.48	55.69	49.39	37.56	33.19	19.91	32.84	58.91	40.05	16.34	37.03
1837....	13.40	13.61	16.07	30.44	42.96	55.87	57.68	58.55	53.10	40.23	34.53	20.95	29.82	57.37	42.62	15.99	36.45
1838....	16.77	8.23	31.17	30.71	44.90	59.00	67.85	63.20	55.54	41.18	24.05	12.21	35.59	63.35	40.26	12.40	37.90
1839....	16.20	20.73	23.02	45.44	45.85	57.46	66.16	64.33	52.66	48.44	31.38	27.90	38.10	62.98	44.16	21.61	41.71
1840....	15.08	21.59	28.82	38.35	58.37	62.19	64.07	60.03	52.45	40.77	31.44	19.87	41.85	62.10	41.55	18.85	41.09
1841....	16.83	15.46	22.34	33.50	46.23	63.39	61.41	63.43	54.99	41.02	31.73	22.82	34.02	62.74	42.58	18.37	39.43
1842....	18.17	19.49	30.85	39.21	42.14	50.52	58.45	62.93	51.12	43.17	29.07	20 78	37.40	57.30	41.12	19.48	38.82
1843....	21.81	3.69	12.70	35.96	44.60	55.60	67.90	62.93	53.30	38.04	28.25	25.80	31.09	62.14	39.86	17.10	37.55
1844....	10.51	20.42	23.77	42.67	47.95	53.39	61.06	60.17	53.35	39.85	29.82	20.91	38.13	58.21	41.01	17.28	38.66
1845....	17.90	19.75	27.30	35.57	44.52	56.27	61.20	63.77	54.92	45.42	31 50	18.25	35.80	60.41	43.98	18.63	39.70

FORT BRADY, MICHIGAN—Continued.

Latitude 46° 30′, *Longitude* 84° 43′. *Altitude* 600 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1846....	23.50	17.12	31.70	42.17	52.95	61.72	......	......	61.62	44.87	39.72	25.75	42.27	......	48.74	22.12	......
1847....	12.40	13.26	19.87	35.03	51.37	55.64	66.99	62.43	54.71	44.25	32.85	22.10	35.42	61.69	43.94	15.92	39.24
1848....	18.53	21.80	25.14	39.11	50.11	......	......	......	......	......	......	......	38.12	......	......	......	......
1850....	21.80	21.74	26.92	36.88	47.31	62.64	65.88	64.49	54.46	45.29	37.38	18.66	37.04	64.34	45.71	20.73	41.96
1851....	17.69	21.96	28.64	38.20	44.47	53.46	62.46	61.28	56.32	44.73	26.64	17.29	37.10	59.07	42.57	18.98	39.43
1852....	11.69	14.13	18.03	34.52	48.91	......	......	......	......	......	35.65	25.06	33.82	......	......	16.96	......
1853....	21.38	18.20	27.70	38.96	48.97	59.88	62.04	63.14	54.08	40.59	32.51	20.47	38.54	61.69	42.39	20.02	40.66
1854....	11.02	12.98	23.14	40.87	46.36	60.54	65.20	61.27	58.04	44.00	29.76	15.26	36.79	62.34	43.93	13.09	39.04
Mean 31 y'rs	17.22	16.20	25.15	38.31	49.34	58.40	64.73	62.90	54.57	43.56	32.50	21.50	37.60	62.01	43.54	18.31	40.37

FORT WILKINS, MICHIGAN.

Latitude 47° 30′, *Longitude* 88° 00′. *Altitude* 620 *feet.*

1844....	......	......	......	......	......	56.78	63.30	63.10	55.82	41.64	29.54	22.67	......	61.06	42.00	......	......
1845....	21.40	23.70	25.99	36.88	44.80	55.85	63.80	61.24	55.75	44.18	30.81	18.43	35.89	60.30	43.58	21.18	40.24
1846....	25.40	19.09	31.88	39.26	52.03	57.41	......	.....	......	......	......	......	40.96	......	......	......	......
Mean ..	23.40	21.40	28.94	38.07	48.41	56.68	63.55	62.17	55.79	42.91	30.17	20.55	38.47	60.80	42.96	21.78	41.00

FORT HOWARD, WISCONSIN.

Latitude 44° 30′, *Longitude* 88° 05′. *Altitude* 620 *feet.*

1822....	13.20	21.40	34.87	41.18	61.15	66.48	72.45	69.59	59.18	43.47	36.32	9.37	45.73	69.51	46.32	14.66	44.05
1823....	19.74	15.17	25.98	42.60	52.23	66.01	71.73	69.09	53.45	42.56	29.91	20.06	40.27	68.94	41.97	18.32	42.38
1824....	24.45	17.95	28.48	42.19	53.53	65.12	73.07	67.92	59.54	42.52	30.50	27.25	41.40	68.70	44.15	23.22	44.37
1825....	18.51	28.15	34.05	47.29	56.93	69.26	79.13	68.56	56 55	48.95	37.25	16.19	46.09	72.32	47.58	20.95	46.73
1826....	19.19	18.85	29.39	39.51	62.35	67.89	70.74	68.24	57.26	50.92	36.29	20.92	43.75	68.96	48.16	19.65	45.13
1827....	16.21	25.10	31.00	43.20	55.61	68.15	72.14	70.17	64.12	46.95	34.19	20.42	43.27	70.15	48.42	20.58	45.60
1828....	18.97	23.48	36.60	41.84	56.79	69.73	69.75	69.69	55.30	48.43	34.60	24.58	45.08	69.72	46 11	22.34	45.81
1829....	18.95	6.88	27.10	40.16	61.21	68.76	68.51	67.45	56.00	49.73	26.51	29.39	42.82	68.24	44.08	18.41	43.89
1830....	14.04	24.47	33.21	51.55	54.53	64.00	75.72	68.77	57.05	54.07	43.04	20.81	46.43	69.50	51.39	19.77	46.77
1831....	9.93	12.71	33.69	40.90	56.51	68.88	72.03	70.04	53.68	46.18	31.21	3.86	43.70	70.32	43.69	8.83	41.63
1832....	16.67	9.27	34.49	47.23	53.95	68.44	71.65	66.51	58.54	......	......	......	45.22	68.87	.....	......	......
1833....	21.48	20.12	30.62	47.89	58.74	64.04	72.55	70.40	60.97	42.74	37.27	33.47	45.75	69.00	47.00	25.02	46.69
1834....	11.55	31.30	33.05	46.77	58.48	63.53	75.23	71.19	58.53	46.66	39.93	26.47	46.10	69.98	48.37	23.11	46.89
1835....	25.84	11.78	31.95	43.06	59.98	67.84	69.83	67.32	53.56	47.34	29.18	19.79	45.00	68.00	43.36	19.14	43.88
1836....	20.97	20.60	23.89	41.84	56.86	63.78	69.15	62.67	55.00	40.33	34.68	23.69	40.86	65.20	43.34	71.75	42.79
1837 ...	24.16	23.44	25.65	38.03	47.95	62.34	67.70	64.72	56.94	45.56	39.66	26.42	37.21	64.92	47.39	24.67	43.55
1838....	21.62	12.54	37.67	39.69	51.03	66.79	71.51	69.82	56.30	42.57	25.84	15.54	42.63	69.37	41.57	16.57	42.53
1839....	24.11	25.12	30.15	52.91	53.93	61.25	71.31	65.28	55.46	54.29	32.07	27.18	45.66	65.95	47.21	25.47	46.07
1840....	16.08	22.67	33.59	46.36	59.54	68.39	68.91	65.53	56.97	45.94	33.00	21.01	46.50	67.61	45.24	19.92	44.82
1849....	......	......	.....	......	......	......	......	......	......	44.77	42.17	15.46	......	......	......	......	......
1850....	21.79	23.38	28.98	37.83	50.11	66.75	70.87	68.03	56.31	47.33	34.69	17.84	38.97	68.22	46.11	21.00	43.87
1851....	20.15	24.89	33.47	39.96	50.19	62.26	67.32	64.56	61.16	46.11	31.10	17.69	41.20	64.71	46.12	20.91	43.23
Mean 21 y'rs	18.93	19.96	31.33	43.43	55.79	66.17	71.49	67.88	57.23	46.54	34.26	20.83	43.52	68.51	46.01	19.91	44.49

FORT WINNEBAGO, WISCONSIN.

Latitude 43° 31′, *Longitude* 89° 28′. *Altitude* 770? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1829....	25.49	9.64	33.77	46.83	64.01	68.40	70.08	70.36	61.11	55.45	31.00	33.75	48.20	69.61	49.19	22.96	47.49
1830*...	17.43	28.20	38.40	57.35	61.97	71.38	83.65	76.20	63.83	60.21	47.62	23.24	52.57	77.08	57.22	22.96	52.46
1831....	13.77	18.94	40.12	49.18	61.44	73.55	74.49	72.46	61.37	51.97	33.85	9.88	50.25	73.50	49.06	14.16	46.74
1832....	24.40	16.52	41.58	53.52	57.40	72.75	76.04	71.38	64.95	55.69	37.02	32.63	50.83	73.39	52.55	24.52	50.32
1833....	29.82	28.31	42.20	54.06	......	......	......	......	......	......	......	......	......	......	......	......	......
1834....	......	......	......	......	......	......	......	......	59.73	47.35	39.00	22.51	......	......	......	......	......
1835....	21.13	7.33	30.83	43.08	58.94	64.10	67.99	64.35	51.18	45.75	27.14	18.62	44.28	65.48	41.36	15.71	41.71
1836....	15.95	17.66	20.49	40.34	56.65	62.06	67.56	61.67	54.33	36.75	31.25	16.98	39.16	63.76	40.78	13.53	39.31
1837....	16.67	19.68	23.30	36.44	50.34	61.73	68.29	64.12	55.77	46.31	35.05	20.77	36.69	64.71	45.71	19.04	41.54
1838....	17.95	6.04	37.89	37.50	49.35	66.57	73.01	68.22	56.49	39.21	21.63	12.93	41.58	69.27	39.11	12.31	40.57
1839....	22.36	22.79	30.47	53.97	54.78	60.57	68.56	64.02	51.22	52.42	28.16	22.33	46.41	64.38	43.93	22.49	44.30
1840....	12.78	22.97	31.52	44.76	58.95	65.38	66.52	64.49	54.45	43.82	30.00	16.45	45.08	65.46	42.76	17.40	42.67
1841....	12.03	15.08	28.98	39.69	55.99	66.27	67.97	63.96	54.50	42.50	31.67	23.49	41.52	66.07	42.89	16.87	41.84
1842....	20.52	21.95	39.70	50.58	52.88	57.76	66.16	65.39	57.63	47.89	26.76	18.31	47.72	63.10	44.09	20.26	43.79
1843....	22.03	8.75	12.38	44.31	53.22	64.26	70.59	67.04	61.83	39.29	29.88	27.24	36.64	67.30	43.67	19.34	41.74
1844....	16.57	24.47	35.02	55.17	......	63.21	71.10	66.43	59.10	43.69	32.11	20.87	......	66.91	44.93	20.64	......
1845...	23.53	27.54	34.96	48.40	57.41	66.57	72.22	69.66	......	......	......	......	46.92	69.48	......	......	......
Mean 16 y'rs	19.52	18.50	32.60	47.20	56.66	65.63	70.95	67.31	57.83	47.90	32.14	21.33	45.49	67.96	45.96	19.78	44.80

* The summer months of this year are reported as unprecedentedly hot and dry in Wisconsin.

FORT CRAWFORD, WISCONSIN.

Latitude 43° 05′, *Longitude* 91° 00′. *Altitude* 642 *feet.*

1822....	14.86	23.73	38.01	43.99	60.45	69.25	73.66	72.70	61.16	44.37	34.26	9.53	47.48	71.87	46.60	16.04	45.50
1824....	24.59	20.14	26.96	43.86	58.46	67.90	71.34	70.12	61.84	46.53	41.86	26.56	43.09	69.79	46.74	23.76	45.84
1825....	18.55	30.45	40.96	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1829....	......	......	......	......	......	......	71.00	73.76	63.05	54.81	30.26	31.93	......	......	49.37	.....	......
1830....	20.21	27.84	38.42	56.76	64.10	73.53	81.46	77.07	61.45	55.97	45.90	19.28	53.09	77.35	54.44	22.44	51.83
1831....	9.92	18.90	36.80	47.26	61.90	72.69	76.56	71.93	60.17	52.00	29.54	5.97	48.65	73.73	47.21	11.60	45.30
1832....	18.42	9.96	37.43	54.84	35.92	72.75	74.40	70.06	62.08	52.01	35.18	28.90	49.40	72.40	49.76	19.09	47.66
1833....	27.57	23.94	34.85	58.86	64.92	70.49	78.72	76.57	70.27	43.79	39.47	32.68	52.88	75.26	51.18	28.06	51.84
1834....	7.96	34.16	34.74	57.44	51.07	68.88	80.49	77.55	59.56	48.58	41.99	27.93	47.75	75.64	50.04	23.35	49.19
1835....	26.27	9.47	35.74	46.45	64.57	68.77	73.83	70.25	56.45	49.57	29.74	21.69	48.92	70.95	45.25	19.14	46.06
1836....	17.72	20.03	24.22	45.73	63.91	67.45	72.95	67.26	60.49	41.71	34.83	20.51	44.62	69.22	45.68	19.42	45.58
1837....	18.43	25.84	26.86	42.56	56.71	64.08	73.74	70.97	61.14	50.06	39.66	21.57	42.02	69.60	50.29	21.95	45.96
1838....	22.03	6.92	43.43	45.16	56.63	72.40	78.22	73.95	63.99	45.87	27.45	17.86	48.41	74.86	45.77	15.60	46.16
1839....	27.38	28.88	35.65	61.56	63.44	69.51	78.71	72.05	58.81	59.53	33.55	25.49	53.55	73.42	50.03	27.25	51.46
1840....	16.21	26.46	37.15	51.34	65.97	73.89	73.31	70.50	59.45	47.94	35.63	23.42	51.49	72.57	47.67	22.03	48.44
1841....	16.79	21.78	36.92	44.99	64.78	71.43	74.25	69.16	59.49	47.61	36.87	25.82	48.90	71.61	48.99	21.46	47.74
1842....	20.31	22.71	43.95	59.68	59.64	67.63	73.78	71.13	62.74	53.39	29.14	19.47	54.42	70.85	48.46	20.83	48.64
1843....	20.17	7.70	8.29	45.60	56.22	67.16	74.00	71.10	65.18	40.22	31.27	28.61	36.70	70.75	45.56	18.83	42.96
1844....	17.25	24.70	37.68	57.24	60.68	66.12	74.19	70.00	60.43	46.74	35.79	20.47	51.87	70.10	47.65	20.81	47.61
1845....	24.43	28.06	38.27	52.57	61.01	68.07	75.25	72.33	......	......	......	......	50.62	71.88	......	......	......
Mean 19 y'rs	19.43	21.67	34.53	50.88	60.58	69.55	75.26	72.03	61.54	48.92	34.56	22.65	48.66	72.28	48.34	21.25	47.63

FORT ARMSTRONG, ILLINOIS.

Latitude 41° 30′, *Longitude* 90° 40′. *Altitude* 528 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1824....	29.58	24.57	32.92	49.17	61.64	70.05	76.47	74.06	64.21	50.47	34.23	29.55	47.91	73.53	49.64	27.90	49.74
1825....	21.59	33.04	42.04	54.35	65.12	74.64	79.91	77.51	65.92	52.04	41.95	22.98	53.84	77.35	53.30	25.87	52.59
1826....	19.26	22.74	37.16	44.95	68.89	74.28	76.41	72.20	63.59	57.52	43.54	26.63	50.33	74.30	54.88	22 88	50.60
1827....	21.75	31.37	40.43	51.18	63.83	72.31	78.38	76.66	67.43	52.26	38.64	27.74	51.81	75.78	52.78	26.95	51.83
1828....	24.28	31.08	35.69	48.25	62.03	75.54	76.85	76.73	60.84	54.29	40 89	33.47	48.66	76.37	52.01	29.61	51.66
1829....	25.75	12.41	32.56	49.73	67.08	74.12	75.10	74.88	62.94	54.78	29.80	34.60	49.79	74.70	49.17	24.25	49.48
1830....	23.45	30.29	41.18	55.90	62.38	72.26	81.36	76.58	62.87	57.00	49.99	26.39	53.15	76.73	56.62	26.69	53 30
1831....	13.10	17.72	38.89	48.56	59.64	70.45	74.34	72.13	59.56	50.90	35.57	9.56	49.03	72.31	48.68	13.46	45.87
1832....	23.35	17.43	41.06	54.92	58.42	73.24	......	......	......	......	......	......	51.47	......	......	......	......
1833....	31.30	28.12	37.68	55.68	63.30	65.88	74.62	73.24	64.90	43.43	39.97	32.90	52.22	71.25	49.43	30.77	50.92
1834....	12.82	36.17	39.07	54.44	59.70	67.64	76.87	75.38	59.64	48.81	40.89	30.00	51.07	73.30	49.78	26.33	50.12
1835....	27.38	11.28	35.22	45.66	60.10	66.26	71.03	69.84	60.82	53.38	33.75	24.91	46.99	69.04	49.32	21.19	46.03
Mean 11½ y's	22.80	24.68	37.82	51.06	62.70	71.39	76.49	74.47	63.90	52.26	39.02	27.16	50.53	74.12	51.73	24.88	50.31

FORT ATKINSON, IOWA.

Latitude 43° 00′, *Longitude* 92° 00′. *Altitude* 700? *feet.*

1842....	18.07	20.76	32.51	54.90	56.94	62.31	70.13	70.76	65.96	55.91	31.80	19.17	51.45	67.73	51.22	19.33	47.43
1843....	21.17	8.39	7.53	44.40	55.08	66.31	72.72	67.17	62.10	38.24	29.90	26.90	35.67	68.73	43.44	18.82	41.66
1844....	14.32	23.61	35.01	55.39	57.32	64.10	73.39	67.40	58.36	43.25	32.23	18.76	49.24	68.30	44.61	18.89	45.26
1845....	22.48	26.59	34.90	49.00	58.67	66.34	73.53	69.35	59.59	45.20	31.02	16.71	47.52	69.74	45.27	21.93	46.11
1846....	29.70	22 35	38.00	45.58	64.21	......	......	......	......	......	......	......	49.26	......	......	......	......
Mean...	21.15	20.34	31.59	49.85	58.44	64.76	72.44	68.67	61.50	45.65	31.25	20.38	46.63	68.62	46.13	20.62	45.50

FORT DES MOINES, IOWA.

Latitude 41° 32′, *Longitude* 93° 38′. *Altitude* 780 *feet.*

1843....	......	......	......	......	......	......	......	......	......	43.50	34.93	31.50	......	......	......	......	......
1844....	21.08	33.97	38.88	59.24	59.33	64.88	76.46	71.61	59.36	45.86	35.70	26.90	52.48	70.98	46.97	27.32	49.44
1845....	28.96	32.08	40.20	52.30	59.11	67.99	76.52	71.86	62.98	......	......	......	50.54	72.12	......	......	......
1846....	32.25	23.90	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean ..	27.43	29.98	39.54	55.77	59.22	66.43	76.49	71.73	61.17	44.68	35.31	29.20	51.51	71.55	47.05	28.87	49.74

FORT GAINES, (RIPLEY,) MINNESOTA.

Latitude 46° 19′, *Longitude* 94° 19′. *Altitude* 1130 *feet.*

1849....	......	......	......	......	......	......	67.68	64.28	56.83	43.05	37.26	4.94	......	......	45.71	......	......
1850....	7.94	13.03	20.27	32.54	50.99	63.76	66.21	67.84	54.60	42.85	30.50	6.03	34.60	65.94	42.65	8.99	38.05
1851....	9.25	14.46	31.32	39.82	48.44	60.04	......	61.61	60.03	43.36	24.33	7.41	39.86	......	42.57	10.37	......
1852....	10.08	17.53	21.21	36.55	55.96	63.05	68.00	66.58	53.43	45.01	22.56	9.37	37.90	65.87	40.33	12.33	39.11
1853....	13.61	7.11	22.46	43.85	52.02	62.92	65.70	66.34	56.53	41.45	24.20	15.74	39.44	64.98	40.73	12.15	39.32
1854....	— 2.10*	10.88	27.26	45.58	52.11	64.01	68.93	61.78	58.59	48.27	29.52	18.19	41.65	64.91	45.46	8.99	40.25
1855....	8.42	8.22	23.69	46.16	57.69	62.90	......	.....	......	......	. . ..	......	42.51	......	.... .	......	......
Mean 6 y'rs	7.87	11.87	24.37	40.75	52.87	62.78	67.30	64.74	56.67	44.00	28.06	10.28	39.33	64.94	42.91	10.01	39.30

* 2.10 degrees below zero.

FORT SNELLING, MINNESOTA.

Latitude 44° 53′, *Longitude* 93° 10′. *Altitude* 820 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1819....	......	......	......	......	......	......	......	......	......	44.13	33.04	20.00	......	......	......	......	......
1820....	0.92	21.29	26.43	52.72	60.64	70.86	68.86	68.32	62.01	......	30.71	10.83	46.60	69.35	......	11.01	......
1821....	7.38	14.51	29.04	40.63	57.08	74.27	72.26	75.06	59.00	48.72	30.74	10.58	42.25	73.86	46.15	10.82	43.27
1822....	11.68	19.92	37.39	43.75	61.28	70.19	75.47	72.77	60.58	42.56	30.58	3.26	47.47	72.81	44.57	11.62	44.12
1823....	13.16	5.95	29.87	49.26	56.94	73.96	75.85	72.00	56.03	47.12	31.75	13.56	45.36	73.94	44.97	10.89	43.79
1824....	17.17	14.20	23.86	41.78	56.29	66.03	73.03	70.50	61.03	41.92	29.96	22.23	40.31	69.85	44.30	17.87	43.08
1825....	14.84	26.25	36.29	55.19	60.90	70.67	75.54	73.01	62.87	45.98	33.94	14.36	50.79	73.07	47.60	18.48	47.48
1826....	13.09	16.15	29.60	37.68	66.76	72.05	73.85	70.24	55.32	49.13	35.29	19.15	44.68	72.05	46.58	16.13	44.86
1827....	17.26	24.86	31.74	44.76	62.93	71.95	74.06	70.35	61.02	49.26	31.99	13.01	46.48	72.12	47.42	18.38	46.10
1828....	10.42	16.80	32.24	45.04	60.28	71.82	76.40	74.46	58.83	50.12	35.18	24.87	45.85	74.23	48.04	17.36	46.37
1829....	15.97	7.51	29.87	48.03	68.17	73.63	73.57	71.34	57.77	50.46	27.14	25.08	48.69	72.83	45.12	16.19	45.71
1830....	14.18	23.60	34.00	51.77	59.70	70.31	81.66	73.21	58.70	54.74	42.79	15.64	48.49	75.06	52.08	17.81	48.36
1831....	8.84	14.04	32.28	45.13	61.11	70.06	73.81	71.51	54.78	48.28	31.16	3.28	46.17	71.79	44.74	8.72	42.85
1832....	17.16	6.46	38.05	53.97	55.89	66.94	73.72	67.61	60.50	50.67	33.54	25.77	49.30	69.42	48.24	16.46	45.85
1833....	21.19	20.93	34.09	51.76	61.09	67.97	75.17	70.75	62.61	41.43	37.11	31.37	48.98	71.26	47.05	24.50	47.95
1834....	5.63	31.16	32.32	51.67	61.76	67.18	77.75	73.32	56.69	45.82	40.02	21.84	48.58	72.75	47.51	19.54	47.09
1835....	23.49	9.28	32.72	43.99	62.56	68.30	70.65	68.00	54.63	45.69	24.38	17.29	46.42	68.98	41.57	16.69	43.41
1836....	12.42	17.04	20.25	43.67	64.29	67.38	72.12	66.12	56.80	41.94	34.37	19.00	42.74	68.54	44.37	16.15	42.95
1837....	19.47	25.08	24.54	41.33	54.06	64.50	71.32	67.92	58.39	46.53	37.79	17.81	39.98	67.58	47.50	20.79	43.96
1838....	9.74	4.45	37.44	41.78	53.07	70.43	75.64	72.67	61.12	42.72	20.53	11.36	44.10	72.91	41.46	8.52	41.75
1839....	22.49	24.80	29.63	57.28	57.18	67.13	73.89	71.14	56.34	54.40	30.14	22.05	48.03	70.72	46.96	23.11	47.20
1840....	12.43	21.85	34.81	47.50	63.83	69.60	70.47	65.93	56.88	40.92	29.47	24.14	48.71	68.67	42.42	19.47	44.82
1841....	13.82	20.48	33.19	38.15	59.72	69.83	72.32	68.33	54.38	44.80	30.41	19.78	43.69	70.16	43.20	14.69	42.93
1842....	17.80	19.54	39.15	49.83	51.87	56.03	68.40	67.69	58.17	49.29	24.60	18.03	46.95	64.04	44.02	18.46	43.39
1843....	20.70	2.01	4.67	43.55	52.25	62.98	69.90	66.56	57.95	47.72	26.61	23.14	33.49	66.48	44.09	15.28	39.83
1844....	9.41	22.33	32.94	51.45	55.08	62.64	69.82	65.61	55.57	41.45	28.10	17.05	46.49	66.02	41.71	16.26	42.62
1845....	19.49	25.60	34.57	47.62	60.83	67.64	74.19	69.47	59.79	45.64	29.50	14.10	47.67	70.43	44.98	19.73	45.70
1846....	28.81	19.53	38.41	46.37	63.65	66.82	74.21	73.86	62.80	42.87	39.85	21.57	49.48	71.62	48.51	23.30	48.23
1847....	4.24	19.70	23.88	46.18	52.64	65.24	71.90	66.73	57.99	46.66	30.45	16.36	40.90	67.96	45.03	13.43	41.83
1848....	16.94	19.46	28.22	44.79	60.11	67.45	67.00	67.16	53.97	50.19	25.68	8.62	44.37	67.20	43.28	15.01	42.46
1849....	5.42	12.93	30.26	39.69	54.77	68.22	71.63	63.85	61.54	47.23	41.60	8.76	41.91	67.90	50.12	9.04	42.27
1850....	13.84	17.83	24.05	35.43	55.81	70.51	78.85	73.90	61.06	49.22	33.73	12.42	37.76	76.75	48.00	14.69	44.30
1851....	14.95	22.10	39.37	50.14	57.99	67.80	76.34	68.41	69.08	52.05	30.27	11.16	49.17	70.85	50.46	16.07	46.54
1852....	12.82	23.14	26.80	43.07	58.48	70.06	73.68	71.57	54.20	53.13	25.73	11.67	42.78	71.77	44.35	15.88	43.69
1853....	14.03	6.69	23.00	44.97	54.97	67.83	70.60	71.27	60.04	45.60	29.60	18.23	40.98	69.90	45.08	12.98	46.74
1854....	1.30	15.40	30.74	48.54	57.82	70.01	75.04	71.12	61.66	52.10	32.30	20.65	45.70	72.06	48.69	12.45	44.72
1855....	17.09	12.62	25.30	49.86	61.29	66.15	......	......	......	......	......	......	45.48	......	......	......	......
Mean 35¾ y'rs.	13.76	17.57	31.41	46.34	58.97	68.46	73.40	70.05	58.86	47.15	31.67	16.89	45.57	70.64	45.89	16.07	44.54

FORT LEAVENWORTH, KANSAS.

Latitude 39° 21′, *Longitude* 94° 44′. *Altitude* 896 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1830....	34.18	40.58	48.52	58.87	64.18	74.34	80.71	78.97	67.21	62.51	46.84	26.71	57.19	78.01	58.85	33.82	56.97
1831....	19.51	24.40	46.41	55.14	64.14	70.24	76.60	71.06	62.18	53.51	40.94	18.21	55.23	72.63	52.21	20.71	50.19
1832....	36.85	18.56	46.34	59.48	61.31	72.44	76.53	73.03	68.02	56.49	41.30	35.25	55.71	74.00	55.17	30.22	54.77
1833....	35.66	35.72	40.92	59.12	67.11	71.78	79.08	77.16	68.33	53.02	45.95	37.51	42.38	76.01	55.77	36.30	52.61
1834....	13.51	35.79	40.92	58.89	65.10	72.04	78.04	78.06	61.53	54.23	44.95	30.67	41.23	76.05	53.57	26.66	49.38
1835....	29.50	19.37	40.98	51.46	67.01	78.35	......	......	......	52.65	32.93	31.94	53.15	......	......	26.94	......
1836....	25.62	29.73	33.07	53.98	66.31	68.68	73.94	70.85	64.08	46.63	30.29	27.54	51.12	71.16	50.00	24.30	49.14
1837....	26.34	34.42	36.57	47.21	59.27	71.23	81.46	75.71	64.90	55.76	49.79	36.94	47.68	76.13	56.82	32.57	53.30
1838....	27.73	17.38	46.90	58.04	61.10	74.88	82.34	77.91	68.69	51.00	28.59	24.05	55.35	78.38	49.43	23.05	51.55
1839....	33.84	36.36	40.22	64.06	64.15	70.34	75.57	72.57	61.35	59.78	37.57	27.84	57.14	72.83	52.90	33.35	54.05
1840....	22.80	34.61	42.92	55.79	63.11	70.91	72.35	72.22	60.68	53.72	38.93	33.15	53.94	71.83	51.11	30.19	51.77
1841....	27.73	27.80	42.00	51.47	63.55	72.21	77.60	70.51	59.15	50.54	39.37	31.08	52.34	73.44	49.69	28.87	51.08
1842....	34.93	35.59	53.42	60.56	62.97	67.48	72.89	71.15	66.64	58.02	32.52	25.67	58.98	70.51	52.06	32.08	53.41
1843....	28.96	20.50	17.45	49.76	60.40	70.50	74.46	72.25	67.24	49.04	40.20	36.12	42.54	72.40	52.16	28.53	48.91
1844....	25.88	33.66	40.19	63.46	62.04	68.75	77.47	73.91	63.44	51.46	38.39	32.18	55.23	73.88	51.10	30.57	52.57
1845....	36.05	37.52	44.44	59.55	63.29	70.27	78.70	75.62	69.53	52.96	41.14	26.66	55.76	74.86	54.54	33.61	54.69
1846....	38.22	31.01	46.65	54.92	66.80	68.87	77.85	77.06	69.04	54.36	45.00	33.08	56.12	74.59	56.13	34.10	55.86
1847....	18.16	31.26	34.95	57.90	59.45	69.91	75.83	69.24	65.63	55.70	38.24	30.00	47.43	71.66	53.19	26.47	49.69
1848....	32.96	35.35	40.67	52.70	66.49	69.05	72.34	69.74	......	......	......	......	53.29	70.38	......	......	......
1849....	18.25	24.78	45.65	53.00	63.45	73.32	74.57	73.32	69.27	52.84	50.31	26.68	54.03	73.74	57.47	23.24	52.12
1850....	29.49	31.34	37.22	45.58	61.51	72.44	76.86	77.93	67.80	55.84	42.19	25.20	48.10	75.74	55.27	28.67	51.94
1851....	32.00	35.16	47.11	50.20	65.25	70.62	75.77	73.37	71.60	54.49	35.25	26.28	54.19	73.25	53.78	31.15	53.09
1852....	24.42	34.82	43.89	50.26	64.68	69.96	74.79	73.42	63.42	58.38	33.51	25.77	52.94	72.72	51.77	28.34	51.44
1853....	32.03	30.53	39.87	54.98	59.97	72.82	72.72	75.71	68.24	53.39	44.18	31.76	51.61	73.75	55.27	31.44	53.02
1854....	24.68	35.53	45.14	56.06	65.45	72.85	81.19	79.10	73.71	60.64	41.37	34.38	55.55	77.71	58.57	31.53	55.84
1855....	28.13	38.23	52.26	60.24	64.61	69.78	77.12	......	......	......	......	......	59.04	......	......	......	......
Mean 24½ y'rs.	28.00	31.15	42.22	55.47	63.64	71.31	76.67	74.16	66.16	54.46	40.36	29.77	53.78	74.05	53.66	29.64	52.78

COUNCIL BLUFFS, NEBRASKA.

Latitude 41° 30′, *Longitude* 95° 48′. *Altitude* 1250 *feet.*

1820....	8.83	29.38	34.12	58.01	62.72	74.12	75.44	75.08	68.01	46.21	32.87	18.41	51.62	74.88	49.03	18.87	48.60
1821....	10.78	24.14	37.00	45.06	58.59	75.00	72.14	77.76	64.16	54.89	35.94	14.92	46.88	74.97	51.66	16.61	47.53
1822....	21.02	32.87	44.81	49.31	63.92	74.01	79.62	77.27	67.81	49.13	35.34	12.80	52.68	76.97	50.76	22.23	50.66
1823....	22.37	16.07	38.87	55.04	61.82	78.99	79.00	76.70	66.83	55.69	41.44	27.48	51.91	78.23	54.65	21.97	51.69
1824....	27.19	27.46	28.42	47.37	63.34	67.45	75.92	75.15	64.45	51.30	30.07	25.81	46.38	72.84	46.61	26.82	48.66
1825....	20.42	32.91	40.34	59.45	66.98	73.05	75.30	76.66	64.34	54.74	43.05	24.17	55.59	75.00	54.04	25.83	52.61
1843*...	24.90	13.78	12.86	48.63	58.22	68.25	73.77	69.46	63.80	......	......	......	39.90	70.49	......	......	......
Mean 7 y'rs.	19.36	25.23	33.77	51.84	62.23	72.98	75.88	75.44	65.63	52.00	36.45	20.60	49.28	74.76	51.36	21.73	49.28

* The observations in 1843 were at *Fort Croghan*, Iowa, twenty miles south of Council Bluffs.

FORT KEARNY, NEBRASKA.

Latitude 40° 38′, *Longitude* 98° 57′. *Altitude* 2360 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	7.10	15.77	35.80	46.92	58.24	67.95	70.95	68.92	65.23	46.74	40.94	17.89	47.00	69.27	50.97	13.59	45.20
1850....	22.92	27.28	31.74	39.94	58.90	68.20	74.95	73.00	63.85	41.98	35.31	19.15	43.52	72.05	47.04	23.11	46.43
1851....	27.00	28.11	......	45.58	60.63	67.00	76.17	70.82	69.58	50.45	30.38	19.69	......	71.33	50.14	24.93	......
1852....	23 07	30.93	33.34	43.30	60.09	67.80	72.62	72.01	58.77	53.35	26.17	15.07	45.57	70.81	46.10	23.02	46.38
1853....	26.08	24.61	36.50	48.56	53.59	70.26	71.52	73.15	63.00	48.94	34.16	29.26	46.22	71.64	48.70	26.65	48.30
1854....	18.26	30.37	36.76	51.22	59.31	68.92	75.16	76.10	66.10	55.91	37.44	30.15	49.10	73.39	53.15	26.26	50.47
1855....	23.55	25.69	32.86	54.39	60.89	69.44	......	......	......	......	......	......	49.38	......	......	......	......
Mean 6½ y'rs	21.14	26.11	34.50	47.13	58.81	68.51	73.56	72.33	64.42	49.56	34.07	21.87	46.81	71.47	49.35	23.04	47 67

FORT LARAMIE, NEBRASKA.

Latitude 42° 12′, *Longitude* 104° 47′. *Altitude* 4519 *feet.*

1849....	......	......	......	......	......	......	......	......	61.98	43.50	37.28	23.92	......	......	47.59	......	......
1850....	27.35	36.27	35.50	43.25	56.04	66.91	72.87	73.51	67.13	54.58	35.05	26.62	44.93	71.10	52.25	30.08	49.59
1851....	35.57	31.21	41.00	47.45	55.15	67.21	77.38	72.69	69.32	51.56	33.24	24.74	47.86	72.43	51.37	30.50	50.54
1852....	30.68	33.02	30.00	42.80	57.11	67.18	75.05	73.10	58.77	49.56	25.23	19.92	43.30	71.78	44.52	27.87	46.87
1853....	34.11	29.71	36.92	48.57	51.62	65.59	72.97	73.14	61.11	49.67	41.73	33.72	45.70	70.57	50.84	32.51	49.90
1854....	22.60	36.40	41.06	50.62	56.92	67.73	75.24	76.46	66.95	56.59	42.44	38.94	49.53	73.14	55.33	32.65	52.66
1855....	35.85	29.01	36.41	52.94	59.82	69.44	......	......	......	......	......	......	49.72	......	......	......	......
Mean 6 y'rs.	31.03	32.60	36.81	47.60	56.11	67.34	74.70	73.78	64.21	50.91	35.83	27.98	46.84	71.94	50.32	31.14	50.06

FORT ARBUCKLE, INDIAN TERRITORY.

Latitude 34° 27′, *Longitude* 97° 09′. *Altitude* 1000? *feet.*

1850....	......	......	......	......	......	......	......	......	......	60.68	52.92	34.15	......	......	......	......	......
1851....	39.28	43.11	54.62	56.96	69.11	78.03	81.83	84.55	77.13	62.80	45.56	39.47	60.23	81.47	61.83	40.62	61.04
1852....	36.77	47.07	53.76	59.77	70.25	73.71	78.26	78.04	69.05	63.11	45.10	38.82	61.26	76.67	59.09	40.89	59.48
1853....	41.33	40.68	51.24	64.26	66.25	77.35	79.50	81.81	74.51	60.77	52.91	42.44	60.58	79.55	62.73	41.48	61.08
1854....	36.16	47.75	57.39	60.82	68.64	74.96	83.29	83.95	77.28	66.35	49.91	42.90	62.28	80.73	64.51	41.94	62.37
1855....	41.94	39.86	49.09	67.43	75.39	77.61	85.67	......	......	......	......	......	67.30	......	......	......	......
Mean ..	39.10	43.69	53.22	61.85	69.93	72.33	81.71	82.09	74.49	62.74	49.28	39.56	61.67	78.71	62.17	40.78	60.83

FORT BELKNAP, TEXAS.

Latitude 33° 08′, *Longitude* 98° 48′. *Altitude* 1600? *feet.*

1851....	......	......	......	......	......	......	83.31	84.70	79.93	66.20	46.64	41.93	......	......	64.26	......	......
1852....	39.40	49.77	56.26	60.08	71.15	75.88	80.58	79.95	71.48	66.15	49.55	44.11	62.49	78.80	62.39	44.43	62.03
1853....	44.86	43.28	54.51	67.31	68.41	78.12	81.72	84.59	79.29	65.29	55.45	46.07	63.41	81.48	66.68	44.74	64.08
1854....	41.01	52.33	63 15	65 77	71.66	78.79	83.86	80.75	78.71	69.62	53.59	46.53	66.86	81.13	67.31	46.62	65.48
1855....	45.92	44.49	53.09	70.00	76.80	79.12	......	......	......	......	......	......	66.83	......	......	......	......
Mean ..	42.80	47.47	56.90	65.79	72.00	77.98	82.37	82.50	77.33	66.81	51.31	44.66	64.90	80.95	65.15	44.98	63.99

FORT WORTH, TEXAS.

Latitude 32° 40′, *Longitude* 97° 25′. *Altitude* 1100? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	......	......	......	59.46	44.24	......	......	......	......	......
1850....	49.96	50.61	55.63	61.96	67.98	77.63	81.76	85.70	79.69	66.82	53.67	38.87	61.82	81.69	66.06	46.48	64.01
1851....	45.78	46.71	56.64	61.10	72.70	79.29	82.23	84.55	78.66	66.23	48.80	44.12	63.48	82.02	64.56	45.33	63.90
1852....	40.88	51.42	58.49	61.49	73.79	76.83	81.73	79.62	71.27	65.61	51.52	46.30	64.59	79.39	62.80	46.20	63.25
1853....	45.70	46.39	54.44	65.71	67.47	76.02	78.24	81.61	......	......	......	......	62.54	78.62	......	......	......
Mean ..	43.58	48.78	56.30	62.56	70.48	77.44	80.99	82.87	76.54	66.22	53.36	43.38	63.11	80.43	65.37	45.25	63.54

PHANTOM HILL, CLEAR FORK OF BRAZOS, TEXAS.

Latitude 32° 30′, *Longitude* 99° 45′. *Altitude* 2300? *feet.*

1851....	......	......	......	......	......	......	......	......	......	......	......	46.09	......	......	......	......	......
1852....	42.33	51.10	56.50	63.68	74.74	75.96	80.47	79.70	72.04	64.16	50.28	46.10	64.97	78.71	62.16	44.88	62.67
1853....	45.98	46.39	55.46	69.11	69.12	76.97	81.00	83.29	76.82	63.02	56.24	46.60	64.56	80.42	65.36	46.32	64.16
1854....	40.44	50.43	62.11	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean...	42.92	49.31	58.02	66.39	71.93	76.46	80.73	81.49	74.43	63.59	53.26	46.26	65.45	79.56	63.76	46.16	63.73

FORT CHADBOURNE, TEXAS.

Latitude 31° 38′, *Longitude* 100° 40′. *Altitude* 2120 *feet.*

1852....	......	......	......	......	67.81	73.57	79.15	77.91	69.44	63.07	50.29	47.64	......	76.87	60.93	......	......
1853....	45.25	47.44	53.78	64.88	65.32	70.52	75.92	75.08	70.49	54.71?	54.24	46.61	61.33	73.84	59.81	46.43	60.35
1854....	38.73	46.94	63.58	63.17	70.08	74.00	78.54	82.94	76.01	69.57	55.13	45.72	65.61	78.49	66.90	43.80	63.70
1855....	48.89	45.87	56.68	68.51	74.84	77.06	......	......	......	......	......	......	......	......	......	......	......
Mean ..	44.29	46.75	58.01	65.52	69.51	73.79	77.87	78.64	71.98	62.45	53.22	46.62	64.35	76.77	62.55	45.87	62.38

FORT GRAHAM, TEXAS.

Latitude 31° 56′, *Longitude* 97° 26′. *Altitude* 900? *feet.*

1850....	......	......	57.84	62.28	68.45	78.84	83.90	85.07	78.43	66.62	55.94	40.35	62.84	82.60	66.99	......	......
1851....	48.27	49.92	58.38	62.69	74.92	81.45	84.90	87.20	80.15	68.37	53.89	48.26	65.33	84.51	67.47	48.82	66.53
1852....	44.01	55.02	58.98	64.29	74.97	77.76	84.39	82.01	73.80	67.93	56.65	50.84	66.08	81.39	66.13	49.96	65.89
1853....	51.58	51.49	57.16	67.00	72.02	79.75	79.35	84.53	......	......	......	......	65.06	81.21	......	......	......
Mean...	47.95	51.81	58.09	64.31	72.59	79.45	83.13	84.70	77.46	67.64	55.49	46.48	64.99	82.43	66.86	48.75	65.76

FORT GATES, TEXAS.

Latitude 31° 26′, *Longitude* 97° 49′. *Altitude* 1000? *feet.*

1849....	......	.....	......	......	......	......	......	......	......	67.25	65.37	49.59	......	......	.....	......	......
1850....	56.21	54.35	59.97	64.59	68.58	76.28	80.80	82.51	78.26	68.51	54.72	40.17	64.03	79.86	67.16	50.24	65.32
1851....	47.84	47.45	58.89	62.75	74.49	81.59	85.04	87.68	80.10	66.00	50.82	47.66	65.21	84.77	65.64	47.65	65.82
Mean....	52.02	50.90	59.18	63.67	71.53	78.93	82.92	85.09	79.18	67.25	56.97	45.81	64.79	82.31	67.80	49.58	66.12

FORT CROGHAN, TEXAS.

Latitude 30° 40′, *Longitude* 98° 31′. *Altitude* 1000? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	78.75	80.90	81.19	76.57	65.57	60.27	44.56	......	80.28	67.47	......	......
1850....	54.14	53.66	62.33	63.73	63.55	74.35	79.62	83.46	80.50	70.58	56.94	43.41	63.20	79.14	69.34	50.40	65.52
1851....	51 20	52.34	60.01	63.72	75.52	81.70	83.42	86.65	78.38	64.90	50.22	47.13	66.42	83.92	64.50	50.22	66.26
1852....	42.89	55.03	62.13	66.67	75.70	78.56	81.31	82.27	74.66	68.14	56.98	52.44	68.16	80.71	66.59	50.12	66.40
1853....	48.95	47.82	57.06	68.50	71.40	78.35	80.03	79.22	......	......	......	......	62.32	79.20	......	......	......
Mean ..	49.29	52.21	60.38	65.65	71.54	78.34	81.06	82.56	77.53	67.30	56.10	46.88	65.86	80.65	66.98	49.46	65.74

FORTS MARTIN SCOTT, MASON, TERRETT, AND McKAVETT, TEXAS.

1849....	......	......	......	......	......	......	......	74.79	70.57	60.05	55.66	......	......	......	62.09	......	......
1850....	54.15	52.39	57.10	62.87	65.92	73.45	75.67	78.86	73.55	62.05	51.47	39.18	61.96	75.99	62.35	48.57	62.21
1851....	42.95	47.76	54.10	62.08	71.09	77.51	78.84	80.76	74.74	64.02	50.10	47.01	62.42	79.04	62.95	45.91	62.58
1852....	41.44	57.20	61.63	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean Ft. M. S	46.18	52.45	57.61	62.47	68.50	75.48	77.20	78.14	72.95	63.04	52.41	43.09	62.86	76.94	62.80	47.24	62.46
M. 1852	......	......	......	72.42	77.68	75.74	77.62	80.70	73.15	68.27	54.32	49.37	.....	78.02	65.25	......	......
M. 1853	46.57	47.45	56.84	69.35	71.30	76.96	79.53	80.60	76.69	65.57	58.16	......	65.83	79.03	66.81	......	......
T. 1852	......	......	......	65.25	75.85	77.96	80.04	80.53	73.19	66.51	53.90	48.59	......	79.51	64.53	......	.. ...
T. 1853	44.43	45.98	56.91	67.45	69.80	73.97	76.37	77.10	73.52	63.66	58.57	50.59	64.72	75.81	65.25	47.00	63.20
Mc. 1852	......	......	......	67.16	76.13	75.72	79.07	79.66	71.19	64.29	53.09	47.82	......	78.15	62.86	......	......
Mc. 1853	44.62	44.58	56.02	66.75	68.58	73.36	77.56	78.76	......	......	......	......	63.78	76.56	......	......	......
Mc. 1854	42.89	51.52	62.50	64.04	70.33	76.80	78.74	80.10	75.57	67.50	54.19	43.66	65.62	78.55	65.75	46.02	63.98
Mc. 1855	46.74	44.51	53.66	67.05	73.61	73.84	......	......	......	......	......	......	64.77	......	......	......	......
Mean Ft.McK.	44.75	46.87	57.39	66.25	72.16	74.93	78.46	79.51	73.38	65.89	53.64	45.74	65.27	77.63	64.30	45.79	63.25

Fort Martin Scott—Latitude 30° 10′, longitude 99° 05′; altitude 1300 feet. *Fort Mason*—Latitude 30° 48′, longitude 99° 15′; altitude 1200? feet. *Fort Terrett*—Latitude 30° 23′, longitude 100° 16′; altitude 1320 feet. *Fort McKavett*—Latitude 30° 55′, longitude 100° 05′; altitude 2060 feet.

SAN ANTONIO, TEXAS.

Latitude 29° 25′, *Longitude* 98° 25′. *Altitude* 600 *feet.*

1849....	......	......	......	......	......	......	80.48	79.34	78.94	71.90	65.59	53.66	......	......	72.14	......	......
1850....	57.28	56.78	62.53	69.35	72.55	80.61	84.75	85.88	83.06	73.27	63.63	47.67	74.67	83.74	73.32	53.91	71.41
1851....	54.51	53.66	60.83	66.06	74.76	78.88	79.16	83.96	77.85	71.00	56.28	51.51	67.22	80.67	68.38	53.32	67.37
1852....	47.98	62.19	66.22	72.90	81.88	82.07	83.74	86.41	79.29	72.54	......	......	73.66	84.07	......	......	.....
Mean...	53.26	57.54	63.19	69.44	76.40	80.52	82.03	83.92	79.78	72.18	61.83	50.95	69.68	82.16	71.26	53.92	69.25

FORT MERRILL, TEXAS.

Latitude 28° 17′, *Longitude* 98° 00′. *Altitude* 150 ? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1851....	......	......	......	69.57	77.34	82.30	81.82	84.95	78.70	72.00	59.64	59.50	......	83.02	70.11	......	......
1852....	......	......	......	72 46	79.67	80.30	81.85	......	......	......	......	......	......	......	......	......	......
1853....	......	......	......	......	......	......	......	83.96	79.96	75.18	66.26	58.66	......	......	73.80	......	......
1854....	55.14	59.56	75.50	76.54	80.73	84.82	85.91	84.39	81.09	75.00	61.76	52.17	77.59	85.04	72.62	55.66	72.73
1855....	54.51	54.65	61.82	74.50	81.13	80.11	......	......	......	......	......	......	72.48	......	......	......	......
Mean...	54.82	57.20	68.66	73.27	79.72	81.88	83.19	84.43	79.92	74.06	62.55	56.78	73.88	83.17	72.18	56.27	71.37

FORT EWELL, TEXAS.

Latitude 28° 05′, *Longitude* 98° 57′. *Altitude* 200 ? *feet.*

1852....	......	......	......	......	......	......	......	......	79.54	73.38	65.13	58.71	......	......	72.68	......	......
1853....	55.37	57.10	63.87	75.61	79.38	83.80	86.52	84.47	80.79	71.49	64.41	55.08	72.95	84.93	72.23	55.85	71.49
1854....	50.47	58.12	70.34	72.50	77.45	81.61	82.22	83.22	81.38	......	......	......	73.43	82.35	......	......	......
Mean ..	52.92	57.61	67.00	74.05	78.41	82.70	84.37	83.84	80.57	72.43	64.77	56.89	73.15	83.64	72.59	55.81	71.30

CORPUS CHRISTI, TEXAS.

Latitude 27° 47′, *Longitude* 97° 27′. *Altitude* 20 *feet.*

1845....	......	......	......	......	......	......	......	......	......	......	62.22	51.92	......	......	......	......	......
1846....	56.30	56.98	63.21	68.50	77.29	80.10	82.22	82.04	81.15	73.69	......	......	69.66	81.45	.....	......	......
1849....	......	......	......	......	......	......	81.25	81.11	81.01	74.36	72.24	62.21	......	......	75.87	......	......
1851....	......	......	69.98	71.23	79.86	82.62	82.96	84.74	80.38	72.12	60.21	56.50	73.69	83.44	71.23	......	......
1854....	......	......	......	......	76.61	83.27	83.40	84.61	81.62	.. ..	......	......	......	83.43	......	......	......
Mean ..	56.30	56.98	66.59	69.86	77.89	82.00	82.46	83.12	81.04	73.39	64.89	56.88	71.45	82.53	73.11	56.72	70.95

The observations in 1849 were at Point Isabel, south of Corpus Christi.

FORT BROWN, TEXAS, (MATAMOROS.)

Latitude 25° 54′, *Longitude* 97° 26′. *Altitude* 50 *feet.*

1846....	......	......	......	......	......	......	......	......	......	......	75.36	72.81	......	......	......	......	......
1847....	58.51	64.14	67.66	77.29	82.38	84.79	85.43	84.56	80.88	76.32	70.25	61.37	75.78	84.93	75.82	61.34	74.47
1848....	65.43	66.17	69.61	72.03	81.22	......	......	......	......	......	......	......	74.29	......	......	......	......
1849....	......	......	......	......	......	......	......	......	78.97	71.01	68.97	62.22	......	......	72.98	......	......
1850....	62.49	66.03	70.61	73.24	74.31	80.43	84.87	84.76	84.74	76.26	67.26	58.22	73.32	83.32	76.08	62.24	73.49
1851....	60.54	65.21	66.69	75.18	81.60	83.11	82.41	85.83	79.83	73.23	61 89	57.94	74.49	83.45	72.65	61.23	72.95
1852....	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1853....	56.35	59.84	69.94	78.73	78.97	82.06	84.45	82.76	78.91	71.11	69.37	62.26	75.88	83.09	73.13	59.48	72.89
1854....	59.34	62.45	71.87	73.90	81.00	83.67	84.06	82.00	81.06	76.44	70.35	60.73	75.59	83.24	75.95	60.91	73.92
1855....	60.23	61.60	66.24	74.98	81.77	81.05	......	......	......	......	......	......	73.25	......	......	......	......
Mean 7 y'rs.	60.41	63.63	68.95	75.05	80.18	82.52	84.24	83.98	80.73	74.06	69.06	62.22	74.73	83.58	74.62	62.09	73.75

NOTE.—The observations are reported as from Matamoros for most of the period previous to 1849, though generally taken at positions on the north side of the river.

RINGGOLD BARRACKS, TEXAS.

Latitude 26° 23′, *Longitude* 99° 02′. *Altitude* 200 ? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	......	......	72.97	69.85	61.09	......	......	......	......	......
1850 ...	65.48	65.57	70.95	76.92	76.97	85.17	88.94	89.06	83.08	77.08	66.60	55.65	74.64	87.72	75.58	62.23	75.54
1851....	59.68	63.04	72.50	77.55	83.80	86.39	84.33	87.07	80.58	75.01	63.19	59.36	77.62	85.93	78.59	60.69	75.71
1852....	52.77	69.84	73.50	77.67	83.41	83.60	85.69	87.00	81.68	75.47	68.97	62.92	78.19	85.43	75.37	61.84	75.21
1853....	57.32	60.59	67.43	77.59	82.[illegible]7	83.80	87.32	84.50	80.62	73.28	69.34	61.03	75.86	85.21	74.41	59.65	73.78
1854....	55.72	62.38	74.10	76.39	81.74	84.30	82.65	83.01	81.31	75.98	65.42	56.44	77.41	83.32	74.24	58.18	73.29
1855....	59.38	59.03	65.54	76.21	83.51	.....	82.15	......	......	......	......	......	75.09	......	......	......	......
Mean 6 y'rs.	58.39	63.41	70.67	77.05	82.00	84.65	85.18	86.13	81.45	74.96	67.23	59.41	76.57	85.32	74.54	60.40	74.21

FORT McINTOSH, LAREDO, TEXAS.

Latitude 27° 31′, *Longitude* 99° 21′. *Altitude* 400 ? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	86.38	84.60	80.76	71.19	66.11	56.65	......	......	72.68	......	......
1850....	60.78	61.85	68.62	74.04	76.42	82.23	86.09	90.12	86.64	75.73	62.85	50.80	73.02	86.68	75.07	57.47	73.06
1851....	57.67	61.17	67.92	74.81	82.92	86.02	86.41	90.32	82.46	73.24	60.25	55.14	75.22	87.58	71.98	57.99	73.19
1852....	50.59	67.72	71.54	77.58	84.52	84.67	87.36	89.61	82.16	75.15	66.62	59.58	77.88	87.21	74.64	59.29	74.76
1853....	55.18	56.97	66.36	78.24	81.73	84.26	87.71	85.72	82.39	72.92	67.98	57.71	75.44	85.90	74.43	56.62	73.10
1854....	53.02	60.02	74.23	77.19	81.41	83.69	84.06	84.50	81.16	77.19	64.33	53.80	77.61	84.08	74.23	55.61	72.88
1855....	56.63	57.30	65.29	78.08	84.20	82.73	......	......	......	......	......	......	75.86	......	......	......	....
Mean 6 y'rs.	55.64	60.84	68.99	76.66	81.87	83.93	86.33	87.48	82.59	74.24	64.69	55.61	75.84	85.91	73.84	57.36	73.24

FORT DUNCAN, EAGLE PASS, TEXAS.

Latitude 28° 42′, *Longitude* 100° 30′. *Altitude* 800 ? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	......	......	68.55	62.71	53.89	......	......	......	......	......
1850....	58.63	58.74	66.19	69.97	75.44	80.78	83.44	86.49	84.38	74.70	63.49	50.22	70.46	83.57	74.19	55.86	71.02
1851....	55.58	57.88	65.01	74.15	81.33	85.39	86.07	88.25	83.76	74.62	62.15	53.57	73.49	86.57	73.51	55.68	72.31
1852....	47.96	63.03	66.62	74.42	82.76	84.80	85.67	88.17	80.71	72.61	58.80	54.45	77.80	86.21	70.71	55.81	72.63
1853....	49.47	52.95	62.85	74.67	79.86	81.20	84.65	81.79	80.67	69.64	62.98	51.80	72.46	82.55	71.10	51.41	69.38
1854....	50.25	58.20	68.67	72.18	78.92	81.87	83.52	84.98	81.74	75.75	61.02	50.14	73.26	83.46	72.84	52.86	70.60
1855....	50.51	53.25	61.24	75.26	80.00	......	......	......	......	......	......	......	72.17	......	......	......	......
Mean 6 y'rs.	52.07	57.34	65.10	73.44	79.72	82.81	84.67	85.96	82.25	72.64	61.86	52.34	72.75	84.48	72.25	53.92	70.85

FORT INGE, TEXAS.

Latitude 29° 09′, *Longitude* 99° 07′. *Altitude* 845 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	......	78.45	66.20	60.22	52.81	......	......	......	......	......
1850....	54.91	55.87	61.86	63.11	70.98	78.42	81.87	83.60	81.91	68.02	61.14	45.81	64.98	81.26	70.39	52.19	67.2[illegible]
1851....	......	57.11	62.18	67.25	78.90	81.38	81.70	83.13	78.40	68.00	55.00	53.04	69.44	82.07	67.13	......	......
1852....	44.59	60.32	62.96	68.84	76.95	77.45	79.77	81.69	75.30	68.32	57.57	52.79	69.58	79.63	67.06	52.57	67.21
1853....	48.37	52.38	60.00	70.38	75.12	77.84	81.27	80.68	77.53	66.76	60.75	54.00	68.50	79.93	68.35	51.58	67.09
1854....	47.24	56.04	67.54	64.06	74.89	81.91	83.03	83.95	80.71	73.95	60.29	50.34	68.83	82.96	71.65	51.21	68.66
1855....	52.21	50.63	61.22	74.48	......	......	......	.....	......	......	......	......	......	......	......	......	......
Mean 6 y'rs.	49.46	55.39	62.63	68.02	75.37	79.40	81.53	82.61	78.72	68.54	59.16	51.46	68.67	81.18	68.81	52.10	67.69

FORT LINCOLN, TEXAS.

Latitude 29° 22′, *Longitude* 99° 33′. *Altitude* 900? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	80.61	78.03	65.93	......	53.67	......	......	......	......	......
1850....	57.00	56.53	62.32	64.39	68.85	76.77	81.47	82.52	81.65	77.15	......	......	65.19	80.25	......	......	.....
1851....	......	......	......	......	......	......	81.98	84.43	79.61	66.92	55.64	53.92	.....	......	67.39	......	......
1852....	46.53	61.52	64.32	69.23	77.60	79.88	83.37	......	......	......	......	......	90.38	......	......	......	......
Mean ..	51.74	59.02	63.32	66.81	73.22	78.32	82.27	82.52	79.76	70.00	55.64	53.79	67.78	81.04	68.47	54.85	68.03

FORT CLARK, TEXAS.

Latitude 29° 17′, *Longitude* 100° 25′. *Altitude* 1000 ? *feet.*

1852....	......	......	......	......	......	......	......	80.51	74.80	68.46	58.38	53.21	......	.....	67.18	......	......
1853....	49.16	50.77	56.89	70.09	73.85	77.18	79.96	78.74	76.45	66.22	62.23	52.92	66.94	78.63	68.30	50.95	66.20
1854....	48.41	55.01	66.37	68.72	75.00	79.81	81.97	83.93	80.45	73.32	60.32	51.70	70.03	81.90	71.36	51.71	68.75
1855....	44.06	42.36	61.11	71.72	78.13	80.45	......	......	......	......	......	......	70.35	......	......	......	......
Mean 3 y'rs.	47.21	49.38	61.46	70.18	75.66	79.15	80.96	81.06	77.23	69.33	60.31	52.61	69.10	80.39	68.96	49.73	67.04

FORT FILLMORE, NEW MEXICO.

Latitude 32° 13′, *Longitude* 106° 42′. *Altitude* 3937 *feet.*

1851....	......	......	......	... ..	......	......	......	......	79.60	63.18	48.17	44.14	......	......	63.98	......	......
1852....	39.69	49.73	48.43	56.53	68.67	78.05	79.59	76.42	74.27	59.03	46.00	44.11	57.87	78.01	59.77	44.51	60.04
1853....	41.71	44.98	52.66	65.54	72.50	81.84	85.36	81.39	77.53	65.00	57.48	50.82	63.53	82.86	66.67	45.84	64.72
1854....	48.62	50.41	59.71	66.10	68.59	80.61	85.12	81.24	77.43	70.37	53.23	46.73	64.80	82.32	67.00	48.59	65.68
1855....	47.88	50.62	61.03	69.39	75.51	83.19	......	......	......	......	......	......	68.64	......	......	......	......
Mean...	44.47	48.93	55.46	64.39	71.32	80.92	83.36	79.68	77.21	64.39	51.22	46.45	63.72	81.32	64.27	46.62	63.98

FORT WEBSTER, NEW MEXICO.

Latitude 32° 47′ 53″, *Longitude* 108° 04′ 39″. *Altitude* 6350 *feet.*

1852....	......	40.31	44.54	49.02	57.12	68.97	73.53	67.70	61.48	52.11	38.11	40.63	50.23	70.07	50.57	......	......
1853....	40.59	40.64	47.87	57.18	61.75	71.25	76.76	72.08	64.68	55.59	49.12	45.02	55.61	73.36	56.40	42.08	56.86
T. 1854.	41.81	40.57	50.73	60.42	67.06	72.37	78.27	73.92	69.95	60.13	44.30	41.05	59.40	74.85	58.13	41.14	58.83
T. 1855.	39.44	47.65	54.86	65.01	71.81	......	......	......	......	......	......	......	63.89	......	......	......	......
Mean ..	40.59	40.47	46.21	53.08	59.43	70.11	75.14	69.89	63.08	53.75	43.61	42.82	52.90	71.71	53.48	41.29	54.84

The observations in continuation of this record for 1854 and 1855 were at *Fort Thorn*, latitude 32° 38′, longitude 107° 10′; altitude 4500 feet. They are not included in the mean.

FORT CONRAD, NEW MEXICO.

Latitude 33° 34′, *Longitude* 107° 09′. *Altitude* 4576 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1851....	......	......	......	......	......	......	......	......	......	60.92	41.26	36.65	......	......	......	......	......
1852....	32.27	45.11	53.31	58.05	66.65	73.06	78.36	78.15	86.62	56.45	42.87	40.18	59.67	76.52	61.98	39.52	59.42
1853....	38.68	39.78	50.53	63.68	66.76	75.35	79.76	75.92	71.36	57.29	46.66	38.37	60.32	77.01	58.44	38.94	58.68
1854....	36.82	41.08	50.08	60.78	63.56	75.51	82.14	78.85	72.80	64.90	47.52	38.90	58.14	78.83	61.74	38.93	59.41
1855....	40.54	46.04	55.19	63.67	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean ..	37.08	43.00	52.28	61.54	65.66	74.64	80.09	77.64	76.93	59.89	45.58	38.52	59.83	77.46	60.80	39.53	59.40

From April, 1854, the observations were at *Fort Craig*, eight miles south of Fort Conrad.

ALBUQUERQUE, NEW MEXICO.

Latitude 35° 06′, *Longitude* 106° 38′. *Altitude* 5032 *feet.*

1849....	......	......	......	......	......	......	......	......	69.09	56.95	48.32	38.22	......	......	58.12	......	......
1850....	35.20	40.50	46.20	50.20	61.02	70.76	75.90	74.44	68.07	55.52	40.81	25.96	52.47	73.70	54.80	33.89	53.57
1851....	30.70	36.07	47.26	53.01	61.80	70.19	75.72	......	......	......	......	......	54.02	......	......	......	......
1852....	......	......	......	......	......	......	......	......	......	......	42.92	38.43	......	......	......	......	......
1853....	41.97	40.25	46.42	59.24	65.10	73.43	78.58	......	70.86	58.80	47.88	41.09	56.92	......	59.18	41.00	......
1854....	36.46	40.70	49.35	59.02	62.47	73.83	78.87	76.39	69.42	62.64	40.66	36.48	56.95	76.36	57.57	47.88	59.69
1855....	34.57	40.61	50.45	59.69	67.30	......	......	......	......	......	......	......	59.15	......	......	......	......
Mean ..	35.78	39.63	47.94	56.23	63.54	72.05	77.27	75.41	69.38	58.48	44.12	36.04	55.90	74.91	57.33	37.15	56.32

CEBOLLETA AND LAGUNA, NEW MEXICO.

Latitude 35° 03′, *Longitude* 107° 14′. *Altitude* 6000 *feet.*

1849....	......	......	......	......	......	......	......	......	......	......	......	35.43	......	......	......	......	......
1850....	34.80	40.08	45.25	49.82	59.05	68.85	76.33	76.90	70.31	59.06	41.03	25.54	51.37	74.03	56.80	33.47	53.92
1851....	31.00	31.77	43.76	52.90	64.25	76.19	78.56	74.41	66.60	57.43	46.38	40.10	53.64	76.38	54.83	34.29	54.78
1852....	38.91	46.24	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean ..	34.90	39.36	44.50	51.36	61.65	72.52	77.44	75.65	68.45	58.24	43.70	33.69	52.50	75.20	56.80	35.98	55.12

The position here given is that of *Laguna*. *Cebolleta* is twenty miles northward, and a little more elevated. The record was at this last place until October, 1851.

SANTA FÉ, NEW MEXICO.

Latitude 35° 41′, *Longitude* 106° 02′. *Altitude* 6846 *feet.*

1849....	32.87	35.14	43.18	52.96	54.70	71.33	......	70.22	64.37	48.90	39.59	33.46	50.28	......	50.95	33.82	......
1850....	30.25	31.91	40.94	50.72	......	......	76.20	75.25	......	55.75	......	23.25	......	......	......	......	......
1851....	34.01	34.15	......	49.40	59.02	69.43	72.90	......	......	......	......	......	......	......	......	......	......
1852....	......	......	......	......	......	......	......	......	59.56	47.87	34.39	29.62	......	......	47.27	......	......
1853....	31.16	28.00	37.86	53.92	60.34	66.40	69.37	66.71	62.74	48.27	40.30	31.39	50.71	67.49	50.44	30.18	49.70
1854....	28.51	34.07	41.46	49.80	54.18	68.18	71.80	67.73	61.04	55.56	40.00	33.32	48.48	69.24	52.20	31.97	50.47
1855....	31.88	36.26	40.09	50.89	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean...	31.45	33.25	40.71	51.28	57.06	68.84	72.57	69.98	61.93	51.27	38.57	30.21	49.68	70.46	50.59	31.64	50.59

LAS VEGAS, NEW MEXICO.

Latitude 35° 35′, *Longitude* 105° 16′. *Altitude* 6418 *feet.*

FORT UNION, NEW MEXICO.

Latitude 35° 54′, *Longitude* 104° 57′. *Altitude* 6670 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1850....	38.15	34.30	41.28	46.20	51.77	64.18	67.93	73.01	66.47	48.88	32.98	21.73	46.42	68.37	49.44	31.39	48.90
1851....	28.57	28.10	33.19	47.93	61.06	71.46	74.90	......	......	......	......	......	47.39	......	......	......	......
1851....	......	......	......	......	......	......	......	64.49	51.70	46.62	35.91	31.71	......	......	46.74	......	......
1852....	29.69	35.94	40.88	50.34	57.05	60.79	67.46	64.60	56.44	47.91	34.27	35.05	49.42	64.28	46.21	33.56	48.37
1853....	33.80	31.11	39.78	52.21	56.69	64.52	64.84	64.29	58.38	46.37	42.56	34.12	49.56	64.55	49.10	33.01	49.06
1854....	32.32	36.02	40.91	48.01	54.18	68.18	71.80	67.73	61.04	55.56	40.00	33.32	48.48	69.24	52.20	31.97	50.47
1855....	35.93	34.95	39.84	50.73	57.34	......	......	......	......	......	......	......	49.30	......	......	......	......
Mean...	33.08	33.40	39.31	49.24	56.35	65.83	69.39	66.83	58.80	49.07	37.14	31.19	48.30	67.35	48.34	32.56	49.14

The position and exposure of these posts is such as to permit combination of the records in one mean result. The change to *Fort Union* was made in August, 1851.

FORT MASSACHUSETTS, NEW MEXICO.

Latitude 37° 32′, *Longitude* 105° 23′. *Altitude* 8365 *feet.*

1852....	......	......	......	......	......	......	......	......	48.67	40.12	24.39	19.15	......	......	37.73	......	.....
1853....	20.30	18.84	31.28	45.23	47.73	58.91	62.89	61.58	53.67	......	......	......	41.41	61.13	......	......	.....
1854....	......	......	......	......	49.41	57.50	64.07	62.84	52.74	45.94	29.77	21.43	......	61.47	42.82	......	......
1855....	19.09	25.64	......	44.41	51.19	......	......	......	......	......	......	......	......	......	......	......	......
Mean...	19.69	22.24	31.28	44.82	49.44	58.20	63.48	62.21	51.62	43.03	27.08	20.29	41.84	61.29	40.58	20.74	41.11

FORT DEFIANCE, NEW MEXICO.

Latitude 35° 44′, *Longitude* 109° 15′. *Altitude* 7200 ? *feet.*

1851....	......	......	......	......	......	......	......	......	......	......	......	27.72	......	......	......	......	......
1852....	......	......	......	......	52.72	64.75	68.16	66.96	50.07	45.63	32.45	28.70	......	66.62	42.72	......	......
1853....	29.47	28.06	37.57	48.15	51.63	64.86	70.52	69.00	61.39	44.21	36.43	28.65	45.78	68.13	47.34	28.73	47.50
1854....	24.35	30.65	37.04	46.54	51.08	62.40	70.95	64.94	57.11	48.89	38.09	32.03	44.89	66.10	48.03	29.01	47.01
1855....	24.72	33.62	40.28	45.06	49.16	......	......	......	......	......	......	......	44.83	......	......	......	......
Mean ..	26.18	30.78	38.30	46.58	50.99	64.00	69.88	66.96	56.19	46.24	35.66	29.27	45.29	67.61	46.03	28.74	46.92

FORT YUMA, CALIFORNIA.

Latitude 32° 43′, *Longitude* 114° 36′. *Altitude* 120 *feet.*

1850....	......	......	......	......	......	......	......	......	......	......	......	51.70	......	......	......	......	......
1851....	54.40	53.15	62.64	72.95	......	......	......	......	......	.....	......	......	......	......	......	......	......
1852....	......	.. ...	......	......	......	87.00	88.65	88.10	83.55	72.90	61.46	55.47	......	87.92	72.64	......	......
1853....	59.32	58.60	67.61	73.22	77.66	89.49	94.12	92.16	89.33	79.44	65.74	57.10	72.83	91.92	78.17	58.34	75.31
1854....	54.17	59.18	64.50	74.71	74.12	85.40	94.05	90.62	85.48	77.25	66.04	59.47	71.11	90.02	76.26	57.61	73.75
1855....	57.92	61.20	69.73	72.96	78.41	......	......	......	......	......	......	......	73.70	......	.....	......	......
Mean ..	56.45	58.03	66.12	73.46	76.73	87.29	92.27	90.29	86.12	76.53	64.41	55.93	72.10	89.95	75.69	56.80	73.62

SAN DIEGO, CALIFORNIA.

Latitude 32° 42′, *Longitude* 117° 14′. *Altitude* 150 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	74.27	75.33	69.93	64.15	56.40	51.04	......	......	63.49	......	......
1850....	51.25	52.42	54.87	59.41	61.86	64.00	67.39	74.49	71.44	66.28	56.52	48.69	58.71	68.63	64.75	50.79	60.72
1851....	51.28	50.30	55.19	......	......	......	......	......	......	......	56.38	52.67	......	......	......	......	......
1852....	53.07	55.76	55.07	57.74	61.29	67.09	73.25	72.50	73.57	65.13	57.19	51.71	58.03	70.95	65.30	53.31	61.95
1853....	53.78	52.92	57.83	62.66	63.44	68.43	72.85	72.88	70.74	68.94	58.39	53.52	61.31	71.39	66.02	53.41	63.03
1854....	51.90	52.50	51.62	62.60	60.69	65.04	73.14	73.23	67.64	62.99	56.65	52.60	59.30	70.47	62.43	52.33	61.13
1855....	50.11	55.72	58.42	63.72	66.06	72.40	......	......	......	......	......	......	62.73	......	......	......	......
Mean...	51.90	53.27	56.00	61.23	62.67	67.39	72.72	73.68	70.87	65.50	56.92	51.70	59.97	71.26	64.43	52.29	62.00

POSTS DEL CHINO AND JURUPA, CALIFORNIA.

Latitude 34° 00′, *Longitude* 117° 25′. *Altitude* 1000? *feet.*

1851....	......	......	......	......	......	......	71.89	73.68	70.06	68.58	60.39	53.61	......	......	66.34	......	......
1852....	55.43	56.82	56.57	60.75	63.75	68.76	73.19	71.57	......	......	......	......	60.36	71.17	......	......	......
1852....	......	......	......	......	......	......	......	......	......	64.81	56.03	51.12	......	......	......	......	......
1853....	56.29	54.70	59.29	64.42	63.56	71.83	76.22	74.51	74.07	69.00	57.00	53.62	62.42	71.19	66.69	54.87	64.54
1854....	50.32	53.08	54.49	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean ..	54.01	54.87	56.78	62.58	63.66	70.29	73.77	73.25	72.06	67.46	57.81	52.78	61.01	72.44	65.78	53.89	63.28

The longitude is that of *Jurupa*, the other position being twenty miles westward in the same valley. The change of positions was made in September, 1852. These posts are designated *Rancho del Chino* and *Rancho de Jurupa*, in the registers.

MONTEREY, CALIFORNIA.

Latitude 36° 36′, *Longitude* 121° 52′. *Altitude* 140 *feet.*

1847....	......	......	......	......	55.39	57.90	58.64	59.26	61.16	57.91	52.40	50.60	......	58.60	56.82	......	......
1848....	51.38	46.62	50.15	52.82	55.25	58.05	54.40	60.08	......	......	......	......	52.74	57.51	......	......	......
1849....	......	......	......	......	61.77	56.69	61.70	58.03	57.22	58.91	55.20	50.87	......	58.81	57.11	......	......
1850....	49.25	50.15	50.67	54.59	55.84	56.72	57.58	57.70	59.56	57.01	53.49	49.09	53.70	57.33	56.69	49.39	54.78
1851....	......	......	......	......	......	......	57.06	62.84	59.14	59.96	55.56	53.16	......	......	58.22	......	......
1852....	56.11	54.63	53.53	53.87	55.56	59.90	61.55	......	......	......	......	......	54.32	......	......	......	......
Mean ..	52.25	50.47	51.45	53.76	56.76	57.85	58.49	59.58	59.27	58.45	54.16	50.93	53.99	58.64	57.29	51.22	55.29

FORT MILLER, CALIFORNIA.

Latitude 37° 00′, *Longitude* 119° 40′. *Altitude* 402 *feet.*

1851....	......	......	......	......	......	......	......	82.71	75.41	69.87	55.26	48.00	......	......	68.84	......	......
1852....	48.27	55.74	55.37	63.45	72.33	88.55	......	83.82	81.45	66.33	52.51	48.54	63.72	......	66.76	50.85	......
1853....	49.75	53.09	58.61	64.23	70.16	84.57	89.56	82.56	75.00	68.77	55.72	46.41	64.33	85.56	66.50	49.75	66.54
1854....	43.60	49.57	52.98	62.54	66.80	76.17	90.92	......	74.48	65.12	58.41	49.10	60.77	......	66.00	47.72	......
1855....	46.54	53.66	59.75	61.22	65.96	83.37	......	......	......	......	......	......	......	......	......	......	......
Mean...	47.04	53.01	56.68	62.86	68.81	83.16	90.24	83.03	76.09	67.52	55.48	48.01	62.78	85.48	66.36	49.35	66.00

SAN FRANCISCO, CALIFORNIA.

Latitude 37° 48′, *Longitude* 122° 26′. *Altitude* 150 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1847....	......	......	......	......	......	......	......	......	......	57.55	50.23	50.79	......	......	......	......	......
1848...	49.33	50.49	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1850....	......	......	49.79	54.45	55.21	57.20	......	......	......	......	......	......	53.15	......	....	......	......
1852....	......	......	......	......	......	......	59.86	58.10	58.50	55.46	54.62	50.09	......	......	56.12	......	......
1853....	51.00	49.91	53.06	54.93	56.38	57.60	56.58	56.90	58.96	59.66	55.94	51.28	54.79	57.03	58.19	50.73	55.18
1854....	47.93	51.72	52.00	56.11	53.56	55.80	57.25	56.65	57.31	58.98	56.45	52.63	53.89	56.40	57.58	50.76	54.66
1855....	50.14	54.99	56.61	55.98	56.01	57.35	......	......	......	......	......	......	56.20	......	......	......	......
Mean...	49.60	51.78	52.87	55.37	55.29	56.86	57.90	57.22	58.26	57.91	54.31	51.20	54.51	57.33	56.83	50.86	54.88

BENICIA BARRACKS, CALIFORNIA.

Latitude 38° 03′, *Longitude* 122° 08′. *Altitude* 64 *feet.*

1849....	......	......	......	......	......	......	......	......	......	......	46.15	47.95	......	......	......	......	......
1850....	47.37	49.16	51.20	......	......	69.77	67.50	66.74	65.00	64.30	54.44	46.45	......	68.00	61.25	47.66	......
1851....	49.54	50.08	55.42	60.12	61.83	65.16	65.68	70.07	64.08	65.86	56.93	49 03	59.12	66.97	62.29	49.55	59.48
1852....	48.20	52.43	52.16	56.89	58.65	65.71	70.09	67.82	67.98	60.58	55.86	49.04	55.90	67.87	61.47	49.89	58.78
1853....	48.63	49.85	52.90	56 13	60.62	68.68	65.14	63.98	64.37	64 50	56.29	46.57	56.55	65.93	61.72	48.35	58.14
1854....	42.59	58.85	50.27	57.00	56.40	62.45	68.37	64.42	61.68	58.91	55.90	48.67	54.56	65.08	58.83	46.70	56.29
1855....	45 78	52.17	56.38	56.91	58.29	70.66	......	......	......	......	......	......	57.19	......	......	......	......
Mean...	47.02	52.09	53.05	57.41	59.16	67.07	67.36	66.61	64.62	62.83	54.26	47.95	56.54	67.01	60.57	49.02	58.29

SACRAMENTO, AND CAMP FAR WEST, CALIFORNIA.

Latitude 38° 33′, *Longitude* 121° 20′. *Altitude* 50 *feet.**

1849....	......	......	......	......	......	......	72.25	69.60	64.42	63.96	51.52	45.58	......	......	60.00	......	......
1850....	44.05	45.88	49.20	57.55	71.88	......	......	......	......	66.00	50.25	43.09	59.54	......	......	44.34	......
1851....	45.34	48.03	52.62	60.84	62.13	71.66	75.53	76.29	69.34	64.70	54.35	46.61	58.53	74.49	62.76	46.66	60.61
1852 ...	46.61	51.44	52.06	......	......	......	......	.....	......	......	......	......	......	......	....	......	......
Mean ..	45.33	48.45	51.29	59.20	67.00	71 66	73.89	73.00	66.88	64.89	52.04	45.09	59.16	72.85	61.27	46.29	59.89

* *Camp Far West* is in lat. 39° 07′, long. 121° 18′, and 150 or 200 feet above the sea. The observations were taken at this post after October, 1850.

FORT READING, CALIFORNIA.

Latitude 40° 30′, *Longitude* 122° 05′. *Altitude* 674 *feet.*

1852....	.. ...	......	......	58.66	......	79.00	80.37	78.75	72.33	59.76	51.80	43.42	......	79.37	61.30	......	......
1853....	48.04	49.12	52.37	58.77	65.96	78.51	84.76	78.76	70.70	65.05	53.12	46.23	59.03	80.68	62.96	47.80	62.62
1854....	40.00	47.26	53.61	60.36	66.92	72.47	83.75	79.76	72.42	62.23	53.80	44.80	60.30	78.66	62.82	44.02	61.45
1855....	44.64	51.56	57.31	59.92	64.44	81.65	......	......	.. ...	......	......	......	60.56	......	......	......	......
Mean ..	44.23	49.31	54.43	59.45	65.77	77.91	82.96	79.09	71.78	62.35	52.91	44.82	59.88	80.00	62.35	46.12	62.09

FORT HUMBOLDT, CALIFORNIA.

Latitude 40° 46′, *Longitude* 124° 09′. *Altitude* 50 *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1854....	40.83	43.54	47.37	54.06	53.94	58.04	56.71	57.00	57.02	53.00	48.62	45.69	51.79	57.55	52.88	43.35	51.39
1855....	45.50	49.97	52.59	......	56.56	59.19	......	......	......	......	......	......	......	......	......	......	......
Ft.Ross*	47.20	48.00	49.90	51.30	55.30	56.90	57.90	58.40	56.00	53.40	50.90	48.90	52.20	57.70	53.10	48.00	52.80

* A mean of four years of observation by Russian authorities. Fort Ross is in latitude 38° 35′, and on the coast between Humboldt Bay and San Francisco.

FORT JONES, CALIFORNIA.

Latitude 41° 36′, *Longitude* 122° 52′. *Altitude* 2570 *feet.*

1853....	35.07	37.96	42.01	47.14	55.87	64.36	72.04	......	......	53.67	42.74	33.42	48.34	......	.....	35.48	......
1854....	31.36	35.02	41.16	51 02	53.55	58.76	71.07	68.66	62.72	50.00	40.89	31.58	48.58	66.16	51.20	32.65	49.65
1855....	27.63	39.41	46.17	49.70	54.65	......	......	......	......	......	......	.....	50.17	......	......	......	......
Mean ..	31.37	37.46	43.11	49.29	54.69	61.56	71.56	68.66	62.72	51.84	41.81	32.50	49.03	67.26	52.12	33.78	51.40

FORT ORFORD, CALIFORNIA.

Latitude 42° 44′, *Longitude* 124° 29′. *Altitude* 50 *feet.*

1852....	......	......	......	......	......	60.47	61.33	62.69	59.18	54.70	50.59	44.15	......	61.49	54.82	......	......
1853....	48.72	46.47	47.92	51.55	57.06	......	......	......	......	......	......	......	52.18	......	......	......	......
1854....	......	......	......	......	......	......	58.14	59.50	58.65	55.07	53.25	48.19	......	......	55.66	......	......
1855....	48.04	49.30	51.23	50.63	52.54	57.58	......	......	......	......	......	......	51.47	......	......	......	......
Mean...	48.38	47.88	49.57	51.09	54.80	59.03	59.73	61.09	58.91	54.88	51.87	46.17	51.82	59.95	55.22	47.48	53.62

FORT VANCOUVER, (COLUMBIA BARRACKS,) OREGON.

Latitude 45° 40′, *Longitude* 122° 30′. *Altitude* 50 *feet.*

1849....	......	......	......	......	......	......	.....	......	.....	......	......	34.60	......	......	......	......	......
1850....	38.14	40.99	37.29	56.61	60.19	61.32	67.40	66.65	61.62	53.83	43.11	35.78	51.36	65.12	52.85	38.30	51.91
1851....	42.01	42.90	45.29	......	......	......	......	......	......	......	......	36.89	......	......	......	40.60	......
1852....	42.74	42.19	40.66	48.08	59.81	67.11	......	......	......	53.90	45.08	33.20	49.52	......	......	39.37	......
1853....	37.81	42.13	46.58	54.16	60.00	63.09	70.83	64.04	60.28	53.51	45.37	41.78	53.58	66.00	53.05	40.57	53.30
1854....	......	38.05	45.00	52.43	57.18	56.85	67.90	66.00	60.54	51.96	52.49	36.81	51.54	63.58	55.00	......	......
1855....	42.12	43.71	50.04	51.46	57.57	64.97	......	......	......	......	......	......	53.02	......	......	......	......
Mean...	40.56	41.66	44.14	52.55	58.95	62.67	68.71	65.56	60.81	53.30	46.51	36.51	51.88	65.65	53.54	39.54	52.65

FORT DALLES, OREGON.

Latitude 45° 36′, *Longitude* 120° 55′. *Altitude* 350 *feet.*

1850....	......	......	......	......	......	......	......	......	57.43	52.64	37.93	32.55	......	......	49.33	......	......
1851....	37.95	41.39	46.69	......	......	......	......	......	......	......	......	......	......	......	......	......	......
1852....	......	......	......	......	......	......	......	......	......	53.57	41.25	24.95	......	......	......	......	......
1853....	32.27	37.14	43.76	53.41	62.14	66.58	74.92	70.21	63.71	55.35	41.80	40.07	53.10	70.57	53.62	36.49	53.44
1854....	21.98	38.94	46.00	53.51	58.94	63.51	71.51	71.34	64.00	52.88	44.34	37.07	52.82	68.79	53.74	32.66	52.00
1855....	40.16	42.57	49.33	52.02	57.66	71.19	......	......	......	......	......	......	53.00	......	......	......	......
Mean...	33.09	40.01	46.45	52.98	59.58	67.09	73.22	70.77	61.71	53.61	41.33	33.66	53.00	70.36	52.22	35.59	52.79

FORT STEILACOOM, WASHINGTON TERRITORY.

Latitude 47° 10′, *Longitude* 122° 25′. *Altitude* 300? *feet.*

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	......	......	......	......	......	......	......	......	......	......	46.81	36.29	......	......	......	......	......
1850....	35.87	39.12	40.51	47.33	55.60	61.11	64.25	63.40	56.52	51.87	41.21	37.15	47.81	62.93	49.86	37.38	49.49
1851....	40.60	40.79	43.17	51.49	54.38	61.26	62.93	66.82	57.01	52.90	46.27	41.15	49.68	63.67	52.06	40.78	51.55
1852....	43.26	42.60	40.18	46.49	57.10	63.00	63.51	63.88	57.06	51.69	43.75	33.28	47.92	63.46	50.83	39.71	50.48
1853....	39.73	39.78	41.92	48.74	57.62	60.47	66.73	62.11	58.56	53.58	45.10	44.62	49.43	63.10	52.41	41.38	51.58
1854....	30.61	39.64	43.87	50.83	55.57	58.96	63.71	62.80	59.61	51.73	46.67	43.06	50.09	61.82	52.67	37.77	50.59
1855....	41.95	43.15	47.75	48.39	54.79	59.11	......	......	......	......	......	......	50.31	......	......	......	......
Mean...	38.67	40.58	42.90	48.88	55.84	60.65	64.23	63.80	57.75	52.35	44.97	39.26	49.21	62.89	51.69	39.50	50.82

ASTORIA, OREGON.

Latitude 40° 11′, *Longitude* 123° 48′. *Altitude* 50 *feet.*

1850....	......	......	......	......	......	......	......	62.22	59.38	55.45	46.44	40.66	......	......	53.76	......	......
1851....	43.00	43.62	45.73	52.76	55.00	59.53	61.55	63.76	58.13	......	......	......	51.16	61.58	......	42.43	52.23

CANTONMENT LORING, (FORT HALL,) OREGON.

Latitude 43° 04′, *Longitude* 112° 27′. *Altitude* 4800 *feet.*

1849....	......	......	......	......	......	......	......	63.39	59.62	47.97	34.67	22.50	......	......	47.42	......	......
1850....	24.31	24.06	25.23	42.71	......	......	......	......	......	......	......	......	......	......	......	23.62	......

GREAT SALT LAKE, UTAH.

Latitude 40° 46′, *Longitude* 112° 06′. *Altitude* 4351 *feet.*

1850....	26.40	32.20	35.58	48.00	65.25	71.29	80.55	......	......	......	......	......	49.61	......	......	......	......
1853....	......	......	......	......	......	......	......	......	......	......	......	36.57	......	......	......	......	......
1854....	24.20	35.46	40.50	52.40	......	......	......	......	......	......	41.73	31.65	......	......	......	35.44	......
1855....	30.75	37.38	43.17	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Mean ..	27.12	35.01	39.75	50.20	65.25	71.29	80.55	......	......	......	41.73	34.11	51.73	75.92	......	32.08	53.24

To obtain a nearer approximation to the temperature of this district the observations of Captain Stansbury, in 1850, and those of Lieutenant Beckwith, from December, 1853, to April, 1854, are incorporated.

SERIES OF MONTHLY AND ANNUAL MEASUREMENTS OF RAIN.

THE entire amount of water falling in rain and snow is in all cases intended to be included in the summaries given in the original record, and of which the results for separate years are here consolidated to determine the mean for a series of years. In some cases the amount falling in snow is not fully given as water, and some such omissions have been supplied by taking one-tenth of the reported depth of snow as its equivalent in water.

HANCOCK BARRACKS, MAINE.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1836....	....	....	....	....	....	0.46	3.89	3.28	2.33	3.01	1.74	4.79	......	7.63	7.07	......	......
1837....	2.00	4.40	1.82	2.99	2.21	2.95	4.80	3.90	3.54	2.40	2.87	1.80	7.02	11.65	8.51	8.20	35.68
1838....	1.85	0.62	0.12	1.40	3.87	6.69	2.81	3.54	3.78	5.42	6.72	1.55	5.40	13.04	15.92	4.02	38.37
1839....	2.55	0.94	1.96	4.24	3.35	5.17	7.20	4.50	1.74	0.53	3.89	2.70	9.55	17.40	6.16	5.35	38.77
1840....	1.34	1.35	2.67	5.32	1.52	5.93	3.09	2.97	3.09	5.58	4.11	3.62	9.51	11.99	14.78	6.31	41.91
1841....	5.99	0.81	2.13	3.31	4.74	5.80	1.98	0.12	4.52	1.84	2.53	3.20	10.18	7.90	8.89	10.00	36.97
1842....	2.82	3.41	1.68	1.19	2.64	3.94	9.40	1.56	2.74	4.00	2.47	1.75	5.51	14.90	9.61	7.98	37.60
1843....	2.02	3.15	2.79	3.92	2.80	2.37	2.70	8.92	1.10	7.84	2.14	1.58	9.51	13.99	11.08	6.75	41.33
1844....	2.80	0.79	1.66	1.57	2.87	2.73	3.55	1.80	1.85	4.62	3.13	3.43	6.10	8.08	9.60	7.02	30.80
1845....	4.37	1.73	1.70	1.48	2.51	2.10	8.86	2.15	....	....	....	....	5.69	13.11	......	......	......
Mean 9½ y'rs	2.86	1.91	1.84	2.83	2.95	3.82	4.83	2.27	2.94	3.92	3.29	2.71	7.62	11.92	9.95	7.48	36.97

FORT KENT, MAINE.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1844....	....	....	....	....	....	....	....	....	1.36	4.41	3.86	3.36	......	......	9.64	......	......
1845....	3.75	2.60	1.77	1.06	2.63	1.36	7.72	2.57	....	....	....	....	5.46	11.65	......	9.71	36.46

FORT SULLIVAN, MAINE.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1841....	5.15	0.79	2.55	6.54	1.51	2.94	5.10	1.15	2.48	1.73	2.99	5.18	10.60	9.19	7.20	11.12	38.11
1842....	3.54	3.61	2.75	1.60	2.15	2.00	1.75	6.15	2.85	5.45	4.00	4.80	6.50	9.90	12.30	11.95	40.65
1843....	2.15	2.80	3.38	3.05	2.35	1.55	3.83	3.75	0.95	3.55	3.40	4.70	8.78	9.13	7.90	9.65	38.46
1844....	1.95	1.65	2.75	0.70	3.65	0.82	5.34	4.48	2.35	2.54	4.25	7.06	7.10	10.64	9.14	10.66	37.54
1845....	3.12	2.62	2.25	2.53	5.17	2.00	6.51	3.85	....	....	....	....	9.95	12.36	......	......	......
1849....	....	....	....	....	....	....	....	....	5.24	1.86	2.25	2.47?	......	9.65	......	......	......
1850....	3.83	2.32	2.80	1.50	5.10	6.10	7.10	2.58	4.80	3.24	3.00	4.80	9.40	15.78	11.04	10.95	47.17
1851....	2.81	4.10	4.60	3.30	2.80	1.40	3.35	0.90	3.30	4.50	3.00	2.60	10.70	5.65	10.80	8.91	36.06
1852....	4.30	3.60	2.90	4.10	0.30	2.20	4.00	4.80	3.40	3.50	4.20	2.50	7 30	11.00	11.10	10.40	39.80
1853....	1.70	7 20	4.50	1.90	3.30	0.35	1.70	4.90	....	....	....	....	9.70	6.95	......	......	......
Mean 8½ y'rs	3.17	3.18	3.16	2.80	2.92	2.15	4.28	3.62	3.17	3.29	3.39	4.26	8.88	10.05	9.85	10.61	39.39

FORT PREBLE, MAINE.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1840....	....	....	....	....	....	....	....	....	....	....	4.52	2.20	......	......	......	......	......
1841....	4.28	0.79	1.89	5.05	2.87	1.38	0.74	4.43	4.03	1.48	3.67	6.38	9.81	6.55	9.18	11.45	37.00
1842....	1.91	3.40	1.86	1.80	2.40	4.26	2.95	3.59	4.58	0.98	3.53	5.38	6.06	10.80	9.09	8.69	36.64
1843....	1.87	....	5.20	4.42	4.05	4.79	1.31	6.30	0.39	5.21	3.64	1.04	13.67	12.40	9.24	......	......
1844....	3.43	0.75	3.59	0.34	3.74	3.34	1.76	2.27	1.76	4.66	2.92	4.10	7.67	7.37	9.34	8.28	32.66
1845....	3.75	2.07	2.37	1.44	3.14	1.56	5.86	2.93	2.57	....	....	....	6.95	10.35	......	......	......
1849....	....	....	....	....	....	...	....	....	2.70	4.50	5.30	3.95	......	12.50	......	......	......
1850....	4.85	3.20	2.70	4.60	15.50	4.80	2.90	3.35	5.95	3.45	2.80	4.50	22.80	11.05	12.20	12 55	59.00
1851...	3.55	5.80	2.45	7.35	3.90	3.87	3.65	2.22	4.41	8.43	6.58	2.89	13.70	9.74	19.42	12.24	46.10
1852....	4.79	2.56	3.59	8.54	2.82	5.02	3.19	8.31	3.42	5.30	6.38	6.10	14.95	16.52	15.10	13.45	60.02
1853....	1.87	8.55	2.61	3.76	7.08	1.47	2.68	3.58	....	....	....	....	13.45	7.73	......	......	......
Mean 8½ y'rs	3.37	3.39	2.92	4.14	5.05	3.39	2.78	4.11	3.31	4.25	4.37	4.17	12.11	10.28	11.93	10.93	45.25

FORT CONSTITUTION, NEW HAMPSHIRE.

1836....	....	....	....	3.27	1.29	2.97	1.78	2.05	0.61	3.91	3.57	4.26	......	6.80	8.09	......	......
1837....	1.91	1.53	2.29	4.37	5.21	4.09	1.05	1.65	0.85	1.48	2.01	1.72	11.87	6.79	4.34	5.16	28.16
1838....	2.62	0.97	1.14	2.21	3.38	3.31	2.00	3.79	3.98	4.24	3.35	0.85	6.73	9.10	11.57	4.44	31.84
1839....	0.97	2.06	0.80	3.28	3.85	2.71	2.70	2.55	1.58	0.83	2.05	3.55	7.93	7.96	4.46	6.58	26.93
1840....	0.90	1.37	3.87	4.05	1.93	2.02	1.31	2.99	1.26	....	....	....	9.85	5.32	......	......	......
1842....	1.34	2 68	3.08	1.59	3.13	4.43	3.18	4.23	2.61	0.66	2.41	4.45	7.80	11.84	5.68	8.47	33.79
1843....	1.28	3.57	1.40	2.77	0.60	6.52	1.70	7.16	0.43	3.33	2.67	2.72	4.77	15.38	6.43	7.57	34.15
1844....	2.83	1.43	3.60	0.35	2.75	1.45	1.36	2.23	2.57	4.54	2.99	5.55	6.70	5.04	9.00	9.81	30.55
1845....	3.01	2.88	3.20	1.15	3.15	1.89	7.33	2.72	....	....	....	....	7.50	11.94	......	......	......
1849....	....	....	....	...	....	....	1.35	4.07	1.89	6.01	3.50	3.36	......	11.40	......	......	......
1850....	6.14	2.72	3.45	4.70	8.31	2.73	2.04	6.50	6.68	2.76	2.48	2.22	16.46	11.27	11.92	11.08	50.73
1851....	2.13	5.12	0.55	7.13	2.55	3.67	4.30	1.92	3.23	5.47	6.10	3.18	10.23	9.89	14.80	10.43	45.35
1852....	3.51	2.55	2.26	6.60	1.42	2.79	2.53	6.20	2.71	2.92	4.35	4.65	10.28	11.52	9.98	10.71	42.49
1853....	2.35	4.82	0.29	3.23	6.96	0.52	0.92	5.18	3.21	....	....	....	10.48	6.62	......	......	......
Mean 13 yr's	2.42	2.64	2.16	3.44	3.43	3.01	2.40	3.80	2.43	3.29	3.23	3.32	9.03	9.21	8.95	8.38	35.57

WATERTOWN ARSENAL, MASSACHUSETTS.

1836....	....	....	....	....	....	4.26	2.45	1.11	0.99	2.87	4.45	4.69	......	7.82	8.31	......	......
1837....	2.46	2.95	2.56	3.43	5.92	4.34	1.84	2.13	0.51	1.71	1.74	2.47	11.91	8.31	3.96	7.88	32.06
1838....	3.16	2.18	2.18	2.75	3.85	4.90	2.07	4.94	7.74	4.90	4.30	1.02	8.78	11.91	16.94	6.36	43.99
1839....	1.03	2.39	1.24	6.86	4.73	2.74	4.50	4.63	1.96	2.26	2.07	8.48	12.83	11.87	6.29	11.90	42.89
1840....	2.91	2.76	3.76	5.18	2.48	2.82	2.84	5.10	2.62	4.19	8.96	4.46	11.42	10.76	15.77	10.13	48.08
1841....	5.06	1.46	3.17	....	....	....	2.01	6.05	4.29	3.21	3.95	4.19	......	......	11.45	10.71	......
1843....	1.96	6.74	5.41	3.60	1.86	4.50	2.58	8.00	1.12	5.80	3.39	3.45	10.87	15.08	10.31	12.15	48.41
1844....	3.51	1.64	4.78	0.38	3.67	1.69	2.79	3.30	4.72	5.86	3.05	....	8.83	7.78	13.63	......	......
Mean 7 y'rs.	2.87	2.85	3.30	3.70	3.75	3.61	2.64	4.41	3.00	3.85	3.98	4.11	10.75	10.66	10.83	9.83	42.07

FORT INDEPENDENCE, MASSACHUSETTS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1851....	....	....	....	....	....	....	1.60	1 44	1.24	3.95	4.40	1.28	......	......	9.50	......	......
1852....	3.50	1.32	1.26	4.00	1.20	2.71	1.92	5.35	1.60	1.42	2.94	3.00	6.46	9.98	5.96	7.82	30.22
1853....	2.16	3.48	1.16	2.77	6.31	2.55	4.04	4.70	3.90	2.74	4.52	2.71	10.24	11.29	11.16	8.35	41.04
1854....	2.50	3.36	2.55	5.40	4.28	2.00	4.44	0.50	3.34	1.47	5.57	3.23	12.23	6.94	10.38	9.09	38.64
1855....	6.34	3.30	1.16	2.72	1.62	....	....	....	....	....	....	....	5.50	......	......	......	......
Mean 4 y'rs	3.62	2.84	1.53	3.72	3.35	2.42	3.00	3.00	2.52	2.39	4.36	2.55	8.60	8.42	9.27	9.01	35.30

NOTE.—The measurement of rain at *Fort Independence* appears deficient for most of this period. The record of Cambridge Observatory gives 40.5 inches for 1852, and 53.8 inches for 1853, the differences from these measures being quite equally distributed through the monthly results.

FORT ADAMS, RHODE ISLAND.

1841....	....	....	....	....	....	....	....	....	....	4.81	6.69	7.22	......	......	......	......	......
1842....	4.48	5.95	4.54	3.18	4.65	10.92	3.83	4.38	2.97	0.80	3.66	5.43	12.37	19.13	7.43	15.86	54.79
1843....	4.22	6.43	5.68	7.56	3.69	2.05	2.88	9.12	1.96	10.02	6.84	7.16	16.93	14.05	18.82	17.81	67.61?
1844 ...	5.85	1.24	3.17	1.49	5.21	1.77	5.78	4.72	5.25	8.30	3.31	2.98	9.87	12.27	16.86	10.07	49.07
1845....	2.90	3.15	2.49	1.67	3.22	2.31	2.78	3.54	2.96	4.74	9.49	3.44	7.38	8 63	17.19	9.49	42.69
1846....	2.49	1.98	2.88	1.95	2.75	0.79	2.84	3.70	1.18	....	...	....	7.58	7.33	......	......	......
1848....	....	....	....	....	....	...	....	....	....	....	3.55	5.48	......	......	......	......	......
1849....	1.65	3.27	6.25	2.10	4.26	2.30	1.67	3.33	2.36	7.07	4.52	3.85	12.61	7.30	13.95	8.77	42.63
1850....	5.24	3.51	6.82	4.97	5.75	2.42	4.01	3.65	5.23	3.58	2.39	6.58	17.54	10.08	11.20	15.33	54.15
1851....	3.12	5.68	1.41	7.96	4.10	2.10	6.62	3.65	3.49	4.47	6.84	3.32	13.47	12.27	14.80	12.12	52.76
1852....	4.43	5.41	5.90	8.67	3.92	1.70	2.10	6.90	2.55	2.60	6.62	6.53	18.49	10.70	11.77	16.39	57.33
1853....	6.68	5.13	4.65	10.48	7.56	2.38	4.92	5.34	3.25	....	....	....	22.69	12.64	......	......	......
Mean 10 y'rs	4.10	4.17	4.38	5.00	4.51	2.87	3.74	4.83	3.12	5.15	5.39	5.20	13.89	11.44	13.66	13.47	52.46

NOTE.—The measurements at Fort Adams, particularly for 1843, appear somewhat in excess. A record at New Bedford, for forty years, by Samuel Rodman, esq., gives 42 inches as the mean annual fall, and that at Brown University for twenty years is very nearly the same measure.

FORT TRUMBULL, CONNECTICUT.

1843....	2.05	3.42	5.92	4.20	3.35	2.47	2.51	10.14	1.68	7.45	5.79	3.80	13.47	15.12	14.92	9.27	52.78
1844....	5.92	1.81	6.01	1.19	3.47	1.94	3.81	2.72	2.40	5.39	3.40	2.23	10.67	8.47	11.19	9.96	40.29
1845....	3.54	3.57	3.40	3.00	2.89	3.05	3.69	1.60	1.74	3.65	7.96	4.72	10.29	8.34	13.35	11.83	43.81
1846....	3.04	2.24	3.35	2.12	4.69	....	....	....	....	....	...	....	10.16	......	......	......	......
Mean 3½ y'rs	3.64	3.76	4.67	2.63	3.60	2.49	3.34	4.82	1.94	5.50	5.72	3.58	10.90	10.65	13.16	10.98	45.69

FORT HAMILTON, NEW YORK.

1839....	1.80	2.72	1.90	3.34	6.22	6.41	2.80	5.33	4.74	2.35	4.80	8.70	11.46	14.54	11.89	13.22	51.11
1840....	2.50	2.80	....	4.85	3.38	5.11	4.55	6.20	1.72	....	....	....	......	15.86	......	......	......
1843....	0.70	1.90	4.20	5.70	1.32	1.67	1.88	14.05	3.75	4.10	1.70	3.21	11.22	17.60	9.55	5.81	44.18
1844....	2.97	0.93	4.33	0.52	2.80	2.32	4.87	1.72	4.30	3.78	2.05	2.05	7.65	8.91	10.13	5.95	32.64
1845....	4.26	5.70	2.21	1.00	1.47	3.60	1.95	4.48	2.28	1.76	2.95	3.45	4.68	10.13	6.99	13.41	35.21
1846....	5.15	5.55	2.82	2.40	9.84	2.14	7.09	4.34	0.20	1.58	8.90	2.68	15.06	13.57	10.68	13.38	52.69
1847....	5.04	7.05	5.04	0.71	1.63	8.37	4.32	3.30	10.60	4.25	5.20	7.18	7.38	15.99	20.05	19.27	62.69
1848....	2.20	1.17	1.84	1.75	9.32	5.19	1.80	0.94	1.65	2.95	1.82	2.50	12.91	7.93	6.42	8.87	36.13

FORT HAMILTON, NEW YORK—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	0.44	2.12	5.11	0.52	3.75	0.82	2.76	3.01	2.84	4.50	1.45	2.43	9.38	6.59	8.79	4.99	29.75
1850....	4.69	1.74	5.55	1.44	6.74	2.11	3.68	6.16	4.20	1.83	1.98	5.77	13.73	11.95	8.01	12.20	45.89
1851....	2.39	4.44	3.88	5.32	2.88	1.68	3.29	2.64	1.31	2.99	4.39	2.66	12.08	7.61	8.69	9.49	37.87
1852....	1.94	2.27	4.11	6.06	3.20	2.80	2.64	4.46	1.99	2.25	4.14	3.80	13.37	9.90	8.38	8.01	39.66
1853....	4.58	7.24	5.79	4.78	6.02	4.42	5.83	5.23	3.75	2.73	3.71	1.16	16.59	15.48	10.19	12.98	55.24
1854....	3.05	4.45	0.65	9.58	6.09	4.25	2.23	0.26	3.50	1.19	5.70	3.35	16.32	6.74	10.39	10.85	44.30
Mean...	2.98	3.57	3.65	3.42	4.62	3.65	3.55	4.44	3.38	2.80	3.75	3.84	11.69	11.64	9.93	10.39	43.65

FORT COLUMBUS, NEW YORK.

1836....	1.09	2.01	1.31	2.66	0.63	6.46	1.44	2.37	3.40	2.00	1.90	2.30	4.60	10.27	7.30	5.40	27.57
1837*...	2.70	3.70	8.20	7.50	9.50	8.50	5.90	6.30	2.10	2.11	2.90	6.10	25.20	20.70	7.11	12.50	65.51
1838....	3.93	3.70	4.10	2.50	3.99	3.12	1.83	4.79	4.96	3.64	3.10	2.24	10.59	9.74	11.70	9.87	41.90
1839....	0.69	2.05	2.46	3.35	8.37	4.94	1.35	4.92	3.59	1.45	2.19	7.61	14.18	11.21	7.23	10.35	42.97
1840....	1.84	1.84	2.92	2.03	2.39	2.40	1.80	4.25	1.84	4.59	2.90	1.00	7.34	8.45	9.33	4.68	29.80
1841....	5.30	0.80	2.35	3.93	3.95	4.65	4.90	2.50	2.90	4.40	3.70	2.70	10.23	12.05	11.00	8.80	42.08
1842....	1.07	2.85	1.25	3.60	3.60	3.30	3.80	2.81	2.10	4.30	1.80	3.50	8.45	8.91	8.20	7.42	32.98
1843....	1.00	2.31	2.13	2.14	1.00	0.76	1.64	15.26	3.06	5.91	2.82	3.34	5.27	17.66	11.79	6.65	41.37
1844....	2.66	1.03	4.50	0.55	3.41	2.37	6.00	2.73	4.50	4.08	1.73	2.82	8.46	11.10	10.31	6.51	36.38
1845....	4.87	3.22	3.33	1.22	1.75	3.70	1.75	3.21	2.62	2.50	3.40	2.51	6.30	8.66	8.52	10.60	34.08
1846....	3.92	3.01	3.82	4.01	9.70	1.39	6.01	3.88	0.48	1.34	8.36	2.99	17.53	11.28	10.18	9.92	48.91
1847....	4.62	5.74	8.48	1.53	2.18	6.78	1.62	6.93	12.20	2.13	6.29	6.35	12.19	15.33	20.62	16.71	64.85
1848....	1.75	1.68	2.23	1.16	7.28	4.56	2.64	1.41	1.87	6.61	1.59	4.02	10.67	8.61	10.07	7.45	36.80
1849....	0.61	2.26	4.87	0.62	3.47	0.78	1.43	4.63	1.55	5.63	1.88	4.01	8.96	6.84	9.06	6.88	31.74
1850....	5.57	2.64	4.64	2.72	9.20	3.07	3.92	7.21	4.71	3.16	2.33	5.36	16.56	14.20	10.20	13.57	54.53
1851....	1.46	4.50	1.70	6.94	4.73	0.90	4.72	3.47	1.26	2.95	4.53	3.72	13.37	9.18	8.74	8.68	39.97
1852....	2.92	3.08	4.43	4.74	2.24	2.11	3.25	6.20	2.29	2.06	6.07	4.45	11.41	11.56	10.42	10.45	43.84
1853....	4.14	4.98	2.03	3.32	5.80	4.80	4.40	5.50	5.49	3.90	6.89	1.04	11.15	14.70	16.19	10.16	52.20
1854....	2.60	4.00	0.70	8.80	7.70	2.20	1.90	1.03	1.90	1.80	3.95	8.60	17.20	5.13	7.65	15.20	45.18
Mean ..	2.78	2.92	3.44	3.33	4.78	3.46	3.17	4.70	3.31	3.40	3.59	3.93	11.55	11.33	10.30	9.63	42.23

* At *Fort Wood*, Bedloe's Island, from January, 1837, to September, 1839.

WEST POINT, NEW YORK.

1836....	....	....	....	1.80	5.95	13.90	10.60	3.85	4.30	7.07	9.15	16.65	......	28.35	20.52	......	50.14
1837....	4.15	5.10	11.00	7.75	13.35	13.10	8.75	7.40	3.55	4.20	2.60	2.05	32.10	29.25	10.35	11.30	83.03?
1838....	2.25	2.45	5.30	5.15	12.90	12.27	5.90	5.85	12.50	8.05	6.10	4.65	23.35	24.02	26.65	9.35	83.37?
1839....	6.75	3.95	1.40	9.75	11.25	6.50	9.33	5.72	4.59	2.13	1.44	6.66	22.40	21.55	8.16	17.36	69.47?
1840....	2.50	2.50	3.41	4.59	3.35	2.80	2.73	5.18	3.08	8.33	3.10	6.25	16.35	10.71	14.51	11.25	47.62
1841....	9.95	2.00	5.25	6.60	4.37	5.97	3.40	2.89	3.05	2.10	3.35	5.10	16.22	12.17	13.50	17.05	53.94?
1842....	2.00	2.60	0.75	4.95	4.80	3.23	5.19	9.92	5.60	4.20	2.98	4.40	10.50	18.34	12.78	9.60	50.62
1843....	2.70	3.02	5.05	3.40	2.28	1.95	3.00	11.33	3.62	6.95	4.60	2.70	10.73	16.28	15.17	8.42	50.60
1844....	5.25	3.10	4.20	0.50	5.10	3.45	7.90	5.28	3.50	4.92	1.05	4.12	9.80	16.63	9.47	12.47	48.37
1845....	5.15	2.88	3.40	1.80	4.10	1.82	2.38	7.72	2.60	2.93	5.36	3.24	9.30	11.92	10.89	11.27	43.38
1846....	3.42	2.78	3.90	3.04	6.62	2.30	6.14	2.93	0.17	2.46	10.02	2.80	13.56	11.37	12.63	9.00	46.56
1847....	4.01	6.22	3.49	0.79	2.70	2.27	2.52	2.20	3.58	1.97	1.80	3.50	6.98	6.99	7.35	13.73	35.05

WEST POINT, NEW YORK—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1848....	1.87	3.98	2.71	2.90	7.15	7.37	4.42	0.49	3.67	4.43	6.76	5.04	12.76	12.28	14.86	10.89	50.79
1849.. .	1.03	2.07	4.55	0.90	6.10	1.08	3.15	4.84	0.48	7.63	2.31	4.11	11.55	9.07	10.42	7.21	38.25
1850....	6.06	3.33	4.84	4.30	8.26	3.83	5.89	5.13	8.14	2.34	2.17	5.65	17.40	14.85	12.65	15.04	57.94
1851....	0.82	5.09	2.56	7.24	4.34	1.53	4.44	2.58	1.22	4.02	4.31	2.45	14.14	8.55	9.55	8.86	40.60
1852 ...	1.80	3.80	2.68	4.66	1.85	2.30	4.67	6.39	2.39	2.99	4.47	5.31	9.19	13.36	9.85	10.91	43.31
1853....	3.27	5.45	3.23	5.84	7.99	3.77	10.48	7.87	3.95	3.85	5.60	2.26	17.06	22.12	13.40	10.98	63.56
1854....	3.52	5.04	2.81	10.53	5.08	1.62	3.73	0.46	4.00	1.98	5.65	2.64	18.42	5 81	11.63	11.20	47.06
Mean 19 y'rs	3.50	3.44	3.71	4.55	6.18	4.79	5.50	5.15	3.89	4.34	4.39	4.71	14.44	15.44	12.62	11.65	54.15
M'n last 12 years	3.24	3.90	3.62	3.82	5.13	2.77	4.89	4.77	3.11	3.87	3.76	3.65	12.57	12.43	10.74	10.79	46.53

WATERVLIET ARSENAL, NEW YORK.

1836....	....	....	....	2.21	2.42	7.08	2.39	2.00	0.99	4.15	2.58	4.53	......	11.47	7.72	......	......
1837....	2.49	2.82	2.17	1.34	6.14	4.73	2.92	3.91	1.15	2.12	0.80	1.45	9.65	11.56	4.07	6.76	32.04
1838....	0.83	1.02	1.25	0.63	4.69	4.37	2.67	5.95	2.96	2.56	3.32	0.55	6.57	12.99	8.84	2.40	30.80
1839....	2.20	0.65	1.30	3.63	2.91	4.60	3.61	1.03	3.67	1.22	2.81	2.10	7.84	9.24	7.70	4.95	29.73
1840....	0.27	0.20	2.79	4.60	1.95	3.45	2.54	2.96	4.72	4.24	2.95	1.61	9.34	8.95	11.91	2.08	32.28
1841....	3.69	2.20	2.50	4.34	1.75	3.09	1.08	4.25	5.44	1.41	2.89	3.15	8.59	8.42	9.74	9.04	35.79
1842....	0.95	3.28	3.47	4.93	1.37	4.98	5.03	4.36	7.69	4.18	2.36	....	9.77	14.37	14.23	......	......
1843....	1.90	....	1.30	4.26	3.25	6.05	4.39	7.02	2.61	4.83	2.75	1.60	8.81	17.46	10.39	......	......
1845....	4.25	2.95	3.36	3.25	5.02	2.09	3.31	1.19	3.12	2.04	3.41	2.55	11.63	6.59	8.57	9.75	36.54
1846....	2.86	2.20	2.85	0.86*	3.29	2.96	2.50*	2.90	1.10	2.16	5.00	2.81	7.00	8.36	8.26	7.87	31.49
1847....	1.84	1.38	2.50	2.23	2.45	3.82	6.01	1.74	3.06	3.16	1.97	1.64	7.18	11.57	8.19	4.86	31.80
1848....	2.02	2.27	3.22	1.40	6.61	3.62	5.57	2.98	2.25	3.44	2.23	4.32	11.23	11.37	7.92	8.61	39.13
1849....	0.65	....	1.19?	1.01	5.53	5.52	....	....	0.67	5.34	1.61	2.98	7.73	......	7.62	......	......
1850....	1.80	0.40	0.84	2.92	4.70	1.91	5.27	3.34	4.23	3.37	1.69	2.75	8.46	10.52	9.29	4.96	33.23?
1851....	1.32	3.86	0.97	3.53	2.83	3.60	4.43	2.39	1.66	2.62	4.01	2.86	7.33	10.42	8.29	8.04	34.08
1852....	2.88	1.10	2.06	4.16	1.67	1.28	2.87	2.73	2.67	2.67	4.70	2.35	7.89	6.88	10.04	6.33	31.14
1853....	1.78	4.08	2.72	3.36	5.84	1.62	3.54	3.05	7.56	2.47	5.37	1.43	11.92	8.21	15.40	7.29	42.82
1854....	3.50	2.77	2.73	3.98	1.58	2.31	1.54	0.84	2.82	2.05	2.40	0.98	8.29	4.69	7.27	7.25	27.50
Mean ..	2.07	2.08	2.19	2.92	3.55	3.73	3.51	3.10	3.24	3.00	2.93	2.33	8.66	10.34	9.17	6.38	34.55

* This series is generally incomplete in measurement of water falling as snow. A series of twenty years observation at Albany gives 40 inches as the mean annual fall of water.

PLATTSBURG BARRACKS, NEW YORK.

1840....	1.10	0.20	5.05	5.25	2.50	2.75	3.00	4.50	6.25	1.10	2.00	2.00	12.80	10.25	9.35	3.30	35.70
1841....	2.00	0.81	1.25	....	....	....	1.75	1.50	3.46	0.50	1.47	2.44	......	......	5.43	5.28	......
1842....	0.47	1.32	2.40	2.26	0.80	2.28	4.09	2.41	3.69	3.34	2.84	3.12	5.46	8.78	9.87	4.91	29.02
1843....	1.26	1.46	2.88	1.48	4.88	5.48	5.09	5.22	4.47	4.88	3.08	0.74	11.84	15.79	12.43	3.66	43.72
1844....	0.84	0.54	2.44	2.61	5.40	4.41	4.78	6.46	3.35	4.53	2.40	1.52	10.45	15.65	10.28	2.90	39.28
1845....	2.84	2.67	2.09	2.02	1.83	2.15	2.09	1.31	3.66	2.26	3.49	1.20	5.94	5.55	9.41	6.73	27.63
1846....	1.13	0.74	1.36	0.62	2.91	3.11	....	....	....	....	....	....	4.89	......	......	......	......

PLATTSBURG BARRACKS, NEW YORK—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	....	....	....	....	....	....	0.95	3.60	0.70	4.20	2.30	1.20	......	......	7.20	......	......
1850....	1.10	0.98	0.28	3.78	7.13	2.58	4.12	1.38	4.56	7.64	3.10	7.25	11 19	8.08	15.30	9.33	43.90
1851....	2.19	1.99	2.03	1.61	3.61	5.35	3.09	3.22	3.36	4.61	3.30	1.84	7.25	11.66	11.27	6.02	36.20
1852....	0.90	1.33	2.02	3.42	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean...	1.38	1.20	2.18	2.55	3.63	3.51	3.22	3.30	3.72	3.67	2.66	2.37	8.36	10.03	10.05	4.95	33.39

Mean of eighteen years' observation at Burlington, Vermont, 33.9 inches. Professor Thompson.

MADISON BARRACKS, NEW YORK.

1840....	1.15	3.53	2.58	....	....	....	....	4.80	3.62	3.78	3.16	2.85	......	......	10.56	7.53	......
1841....	3.18	0.51	3.00	2.73	1.74	1.58	4.14	1.59	5.36	1.58	3.85	3.11	7.47	7.31	10.79	6.80	32.37
1842....	0.94	1.93	3.24	3.16	1.76	4.43	3.81	3.38	4.21	4.11	4.38	1.96	8.16	11.62	12.70	4.83	37.31
1843....	2.35	1.85	2.57	2.15	1.44	4.70	2.79	1.85	2.66	6.91	2.44	2.06	6.16	9.34	12.01	6.26	33.77
1844....	2.74	0.85	1.91	1.79	3.37	3.74	3.78	3.80	0.41	3.52	1.62	1.70	7.07	11.32	5.55	5.29	29.23
1845....	3.50	2.92	2.55	2.04	4.16	1.85	5.45	0.57	3.18	2.64	2.24	1.27	8.75	7.87	8.06	7.69	32.37
1846....	2.61	2.24	2.28	1.96	3.49	1.98	....	....	....	....	....	....	7.73	......	......	......	......
1849....	....	....	....	....	1.89	2.07	0.91	4.06	6.51	5.21	4.99	4.85	......	7.04	16.71	......	......
1850....	3.16	3.55	2.13	2.87	6.15	1.64	7.57	3.12	4.75	12.39	3.93	6.26	11.15	12.33	21.07	12.97	57.51?
1851....	2.39	4.52	4.33	3.95	5.08	2.78	7.67	3.53	3.35	6.09	5.85	4.25	13.36	13.98	15.29	11.16	53.79?
1852....	2.90	2.79	5.89	3.29	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	2.49	2.47	3.05	2.66	3.23	2.75	4.51	2.97	3.78	5.13	3.60	3.14	8.94	10.23	12.51	8.10	39.78

The last years of this record appear over-measured, by comparison with other stations and with previous summaries here.

FORT ONTARIO, NEW YORK.

1844....	1.43	0.19	1.54	1.40	3.74	8.20	1.42	6.50	0.54	4.89	1.02	3.71	6.68	16.12	6.45	5.33	34.58
1845....	3.01	2.68	0.85	2.48	2.39	4.73	1.58	....	3.63	5.60	2.65	3.62	5.62	......	11.88	9.31	......
1846....	2.30	2.93	1.55*	1.29	1.82	1.38	....	....	....	....	....	....	4.66	......	......	......	......
1849....	1.16	1.15	2.62	1.65	3.00	1.66	0.69	1.61	2.26	6.30	2.77	2.09	7.27	3.96	11.33	5.40	27.96
1850 ...	1.68	1.08	0.37	3.39	3.04	2.03	6.09	1.25	2.40	5.59	4.81	2.90	6.80	7.37	12.80	5.66	32.63
1851....	2.61	2.31	3.97	1.91	1.31	2.55	2.37	1.32	1.74	2.48	4.97	4.41	7.19	6.44	9.19	9.33	32.15
1852....	2.76	2.14	3.66	0.68	0.86	4.06	1.18	0.53	3.31	4.80	4.47	4.09	5.20	5.77	12.58	8.99	32.54
1853 ...	1.17	4.12	0.89	3.04	2.01	0.72	....	....	....	....	....	....	5.94	......	.....	......	......
1854....	....	....	....	....	....	....	....	....	....	0.82	1.09	1.69	......	......	......	......	......
Mean...	2.02	2.07	1.93	1.98	2.27	3.17	2.22	2.24	2.31	4.35	3.11	3.21	6.18	7.63	9.77	7.30	30.88

FORT NIAGARA, NEW YORK.

1841....	....	....	....	....	....	....	....	....	....	0.77	1.20	3.40	......	......	......	......	......
1842 ...	2.50	3.90	4.10	4.20	2.40	7.25	6.32	3.50	5.05	3.70	4.82	2.75	10.70	17.07	13.57	9.15	50.49
1843....	5.61	2.27	2.74	2.81	2.39	5.67	4.23	1.49	4.72	2.24	1.54	1.36	7.94	11.39	8.80	9.24	37.07
1844....	1.80	0.53	1.52	0.84	2.74	2.59	2.28	2.26	0.26	1.47	0.94	1.63	5.10	7.13	2.67	3.96	18.86?
1845....	1.75	1.17	1.94	2.07	2.57	1.16	1.14	2.81	3.06	1.42	1.21	0.31	6.58	5.11	5.69	3.23	20.61?
1846....	1.90	1.15	1.20	1.08	2.08	1.62	....	....	....	....	....	....	4.36	......	......	......	......

FORT NIAGARA, NEW YORK—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1849....	....	....	....	....	....	....	2.63	7.21	5.00	4.14	3.65	2.91	......	......	12.79	... ..	......
1850....	4.01	0.67	0.49	0.46	*0.70	6.64	6.37	5.17	7.25	3.10	3.06	1.82	1.65	18.18	13.41	6.50	39.74
1851....	1.20	3.32	0.37	2.01	2.49	1.69	3.18	2.26	2.99	2.58	2.40	1.42	4.87	7.13	7.97	5.94	25.91
1852....	1.00	1.71	4.46	2.87	2.56	2.91	1.98	2.60	5.06	3.30	2.62	5.97	9.89	7.49	10.98	8.68	37.04
1853....	1.11	1.64	2.54	3.40	3.70	1.60	2.71	1.56	3.55	1.31	2.18	1.17	9.64	5.87	7.04	3.92	26.47
1854....	1.63	2.52	1.87	2.25	3.90	1.71	4.03	1.52	2.61	....	....	....	8.02	7.26	......	......	......
Mean...	2.25	1.89	2.12	2.20	2.55	3.28	3.49	3.04	3.95	2.37	2.36	2.27	6.87	9.81	8.68	6.41	31.77

* Twelve days.

BUFFALO BARRACKS, NEW YORK.

1842....	....	....	....	....	....	....	2.10	2.00	7.50	2.50	6.20	2.40	......	......	16.20	......	......
1843....	3.52	1.70	3.28	3.51	1.65	2 86	3.77	2.90	7.10	7.76	3.27	3.38	8.44	9.53	18.13	8.60	44.70
1844....	2.40	0.64	3.06	1.55	5.05	3.50	4.77	5.34	0.22	3.90	2.16	2.20	9.66	13.61	6.28	5.24	34.79
1845....	4.08	2.29	2.91	2.70	1.78	1.96	1.54	....	....	....	....	....	7.39	......	......	......	......
Mean...	3.33	1.54	3.08	2.59	2.83	2.77	3.05	3.41	4.94	4.72	3.88	2.66	8.50	9.23	13.54	7.53	38.80

ALLEGHENY ARSENAL, PENNSYLVANIA.

1836....	....	....	....	....	....	....	....	3.28	1.55	2.04	1.59	2.18	......	......	5.18	......	......
1837....	2.66	2.27	1.27	1.00	4.64	7.50	1.70	2.52	1.77	3.93	3.71	2.69	6.91	11.72	9.41	7.62	35.66
1838....	1.29	1.94	1.59	....	....	....	....	....	....	...	....	....	......	......	......	......	......
1839....	1.40	1.80	1.76	1.80	2.08	2.55	2.40	1.50	3.75	0.60	2.70	3.28	5.64	6.45	7.05	6.08	25.62
1840....	1.33	1.33	3.47	2.18	2.93	3.70	1.57	3.89	2.12	2.68	1.71	1.73	8.58	9.16	6.51	4.39	29.64
1841....	2.74	0.07	4.77	3.82	2.40	4.96	1.73	4.01	1.85	2 31	2.77	3.41	10.99	10.70	6.93	6.22	34.84
1842....	2.75	2.88	3.75	4.64	2.86	3.96	4.99	5.91	2.20	2.09	1.72	3.79	11.25	14.86	6.01	9.42	41.54
1843....	2.70	3.31	3.27	2.33	4.05	3.83	1.87	2.32	6.44	3.46	2.87	2.26	10.65	8.02	12.77	8.27	39.71
1844....	2.20	0.93	3.04	1.79	4.89	4.02	2.44	4.47	2.57	2.85	1.85	1.50	9.72	10.93	7.27	4.63	32.55
1845....	3.85	1.50	3.04	2.51	1.18	4.04	3.74	3.06	3.39	3.37	2.02	1.19	6.73	10.84	8.78	5.54	31.89
1846....	2.92	2.73	2.02	3.76	4.62	4.05	7.15	6.05	1.95	4.78	2.60	5.16	10.40	17.25	9.33	10.81	47.79
1847....	3.01	2.86	3.47	2.55	3.64	5.32	4.18	3.26	3.92	4.76	4.27	4.98	9.66	12.76	12.95	10.85	46.22
1848....	1.31	0.50	3.20	2.45	5.51	3.03	3.69	2.27	2.08	2.11	3.11	4.88	11.16	8.99	7.30	6.69	34.14
1849....	2.43	1.31	3.85	0.83	5.83	2.84	1.26	3.26	1.26	3 86	3.97	4.11	10.51	7.36	9.09	7.85	34.81
1850....	3.76	3.45	2.74	2.59	3.30	2.62	2.82	1.27	3.62	4.29	2.19	4.76	8.63	6.71	10.10	11.97	37.41
1851....	0.35	3.01	1.43	2.83	3.57	2.04	4.30	2.66	2.62	1.45	3.67	1.71	7.83	9.00	7.74	5.17	29.74
1852....	1.80	3.34	2.03	9.27	3.84	2.76	2.55	2.76	3.09	2.24	2.67	5.01	15.14	8.07	8.00	10.15	41.36
1853....	1.56	3.53	1.11	4.16	3.27	1.32	2.74	6.56	2.34	2.04	2.90	2.10	8.54	10.62	7.28	7.19	33.63
1854....	2.23	2.33	2.82	4.21	2.24	2.06	1.45	1.13	1.76	2.89	1.88	1.67	9.27	4.64	6.53	6.23	26.67
Mean...	2.18	2.17	2.70	3.10	3.58	3.56	2.97	3.34	2.68	2.87	2.68	3.13	9.38	9.87	8.23	7.48	34.96

CARLISLE BARRACKS, PENNSYLVANIA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1848....	....	....	....	0.95	2.25	2.50	8.79	1.95	2.10	3.28	2.73	4.76	......	13.24	8.11	......	......
1849....	1.09	1.31	3.84	0.68	3.16	1.72	0.45	1.43	0.96	4.63	0.84	3.83	7.68	3.60	6.43	6.23	23.94
1850....	4.28	2.76	3.70	2.38	4.83	3.38	8.90	2.72	5.65	4.08	0.87	3.81	10.91	15.00	10.60	10.85	47.36
1851....	0.51	3.00	2.35	4.76	3.41	4.30	3.89	1.49	1.95	1.18	3.73	....	10.52	9.68	6.86	......	......
1852....	1.18	2.23	3.96	4.69	2.96	3.36	3.51	4.38	1.45	1.64	6.27	3.61	11.61	11.25	9.36	7.62	39.24
1853....	1.26	2.73	0.75	3.02	3.69	0.81	2.63	2.63	3.01	....	....	....	7.46	6.07	......	......	......
1854....	....	....	....	....	....	....	....	1.49	0.78	0.93?	2.30	1.63	......	......	4.01	......	......
Mean ..	1.67	2.41	2.92	2.75	3.38	2.68	4.69	2.30	2.27	2.62	2.79	3.53	9.05	9.67	7.68	7.61	34.01

FORT MIFFLIN, PENNSYLVANIA.

1843....	1.98	1.92	4.45	1.58	3.16	1.74	4.01	6.03	4.95	2.84	4.08	4.30	9.19	11.78	11.87	8.20	41.04
1844....	5.60	2.00	4.15	2.15	3.82	4.90	4.20	2.80	4.30	6.00	4.00	2.90	10.12	11.90	14.30	10.50	46.82
1849....	0.71	2.69	6.05	1.64	4.04	2.26	2.16	7.36	0.48	6.52	2.25	6.18	11.73	11.78	9.25	9.58	42.34
1850....	4.29	2.52	5.39	2.98	7.65	1.65	5.23	6.84	8.45	1.54	....	4.66	16.02	13.72	......	11.47	......
1851....	1.25	4.03	5.60	3.55	4.65	3.00	3.65	3.03	0.94	3.03	3.41	1.90	13.80	9.68	7.38	7.18	38.04
1852....	2.40	2.48	4.60	8.20	5.30	4.55	5.45	4.40	1.40	3.30	3.80	5.45	18 10	14.40	8.50	10.33	51.33
1853....	0.80	3.54	2.20	3.98	5.70	2.00	8.71	4.42	1.80	2.84	....	....	11.88	15.13	......	......	......
Mean ..	2.43	2.60	4.63	3.44	4.90	2.87	4.77	4.98	3.19	3.72	3.51	4.23	12.97	12.62	10.42	9.26	45.27

Mean of 28 years at Pennsylvania Hospital, Philadelphia, by Drs. Swift and Conrad, 42.3 inches.

FORT McHENRY, MARYLAND.

1836....	....	....	....	....	4.10	9.20	2.35	6.70	3.15	4.00	4.80	7.10	......	18.25	11.95	......	......
1837....	2.10	3.10	6.30	2.10	4.20	4.90	4.30	5.10	3.80	3.10	3 40	2.60	12.60	14.30	10.30	7.80	45.00
1838....	2.10	2.90	4.50	2.80	4.30	4.70	1.90	9.10	4.50	3.10	2.70	4.50	11.60	15.70	10.30	9.50	47.10
1839....	3.50	3.60	4.00	9.10	4.50	4.10	5.60	2.20	1.90	1.60	2.80	8.80	17.60	11.90	6.30	15.90	51.70
1840....	2.30	2.30	2.70	4.30	3.90	5.10	1.85	2.35	2.80	4.50	2.15	3.25	10.90	9.30	9.45	7.85	37.90
1841....	6.10	1.40	5.95	4.50	2.75	4.35	1.35	4.00	2.30	2.80	3.30	5.10	15.10	9.70	8.40	12.60	43.90
1842....	1.80	3.35	2.40	4.30	4.00	2.65	3.70	4.40	1.00	1.40	2.75	3.35	10.70	10.75	5.15	8.50	35.18
1843....	1.60	2.20	3.80	2.90	3.55	0.90	5.40	7.82	10.50	1.97	4.25	3.90	10.25	14.12	16.72	7.70	48.79
1844....	3.65	1.45	3.00	1.60	4.00	1.70	3.90	0.31	4.47	3.03	1.85	3.50	8.60	5.91	9.35	8.60	32.46
1845....	2.40	3.59	1.70	1.49	2.36	2.93	1.26	2.77	1.51	3.73	1.22	3.43	5.55	6.96	6.46	9.42	28.39
1846....	2.83	1.82	3.54	2.38	5.77	1.78	6.89	7.20	3.88	1.30	7.17	2.10	11.69	15.87	12.35	6.75	46.66
1847....	2.92	3.42	2.38	0.41	1.19	3.36	2.51	2.97	5.55	3.38	2.54	2.38	3.98	8.84	11.47	9.72	34.01
1848....	1.58	0.94	2.70	0.81	2.96	4.24	4.42	3.24	1.64	7.35	1.44	3.10	6.47	11.90	10.43	5.62	34.42
1849....	1.02	1.15	3.63	0.87	4.18	1.50	2.06	2.55	1.90	6.27	1.06	4.44	8.68	6.11	9.23	6.61	30.63
1850....	3.58	2.43	5.90	3.85	3.08	1.66	3.10	4.70	4.70	3.10	4.30	4.40	12.83	9.46	12.10	10.41	43.80
1851....	1.70	2.90	5.70	4.70	4.60	1.20	4.20	3.30	0.50	2.20	5.60	1.50	15.00	8.79	8.30	6.10	38.10
1852....	2.60	3.60	3.90	7.80	1.70	2.70	5.70	4.60	2.20	2.60	7.90	6.20	13.40	13.00	12.70	12.40	51.50
1853....	1.30	3.40	2.70	3.10	4.30	0.60	3.30	4.70	2.40	4.40	3.50	2.30	10.10	8.60	10.30	7.00	36.00
1854*...	4.40	4.90	4.70	7.20	5.20	4.80	2.60	3.00	4.10	7.10	7.30	3.90	17.10	10.40	18.50	13.20	59.20?
Mean ..	2.64	2.70	3.86	3.56	3.71	3.28	3.50	4.26	3.31	3.53	3.68	3.97	11.13	11.04	10.52	9.31	42.00

* 1854 and 1845 appear inaccurately measured, one in excess and the other in deficiency. Their errors are compensating.

FORT SEVERN, MARYLAND.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	....	....	3.00	2.59	5.71	1.24	6.28	5.99	10.37	2.64	4.96	4.26	11.30	13.51	17.97	......	......
1844....	4.22	0.94	3.55	1.08	4.69	3.91	2.96	1.67	6.47	4.28	3.62	3.37	9.32	8.54	14.37	8.53	40.76
1845....	3.69	5.10	2.85	2.25	3.24	6.94	3.18	....	....	....	....	....	8.34	......	......	......	......
Mean ..	3.96	3.02	3.13	1.97	4.55	4.03	4.14	3.83	8.42	3.46	4.29	3.81	9.65	12.00	16.17	10.79	48.61

WASHINGTON CITY.

1824....	1.50	2.65	1.98	4.30	1.58	4.26	2.45	2.43	2.62	1.23	1.24	2.76	7.86	9.14	5.09	6.91	29.00
1825....	1.62	2.27	3.83	3.35	2.37	2.66	1.87	1.35	0.45	1.68	0.24	2.76	9.55	5.88	2.37	6.65	24.45
1826....	0.60	2.01	1.68	0.45	0.80	1.87	2.66	2.37	1.60	1.08	2.05	1.62	2.93	6.90	4.73	4.23	18.79
1827....	0.48	2.85	1.18	1.97	2.25	1.37	....	....	....	1.02	2.57	2.21	5.40	......	......	5.54	......
Mean ..	1.05	2.45	2.17	2.52	1.75	2.54	2.25	2.05	1.56	1.25	1.52	2.34	6.44	6.86	4.33	5.84	23.47
1836....	....	....	....	....	....	....	....	....	....	....	....	....	......	......	......	......	47.27
1837....	....	....	....	....	....	...	....	....	....	....	....	....	......	......	......	......	31.80
1838....	....	....	....	....	....	....	....	....	....	....	....	....	......	......	......	......	35.10
1839....	....	....	....	....	....	....	....	....	....	....	....	....	......	......	......	......	36.97
1838 to '42.	4.46	2.74	2.56	4.03	3.86	2.92	3.92	3.69	3.52	3.55	3.08	2.87	10.45	10.53	10.15	10.07	41.20

These observations are reported in the first publications of results from the medical department. The first were taken by Rev. Robert Little, and those from 1836 to 1839 by Judge Cranch. Later observations show the quantity of rain falling here to differ little from that at Baltimore, and the evidences are strong that the first series was much under-measured. The last amount is from the observations of Lieutenant Gilliss, and is a mean of measurements from July, 1838, to June, 1842, giving a close approximation to the absolute mean.

FORT WASHINGTON, MARYLAND.

1851....	....	....	....	....	3.77	1.42	4.92	3.51	2.27	1.95	3.66	1.78	......	9.85	7.88	......	......
1852....	1.54	3.23	2.88	7.05	2.29	3.51	2.89	11.54	1.75	2.20	6.90	4.64	12.22	17.94	10.85	9.41	50.42
1853....	3.19	4.40	3.47	3.56	6.23	1.56	3.88	5.30	4.57	....	....	......	13.26	10.74	......	......	......
Mean ..	2.37	3.81	3.17	5.30	4.10	2.16	3.90	6.78	2.86	2.08	5.28	3.21	12.57	12.84	10.22	9.39	45.02

FORT MONROE, VIRGINIA.

1836....	....	....	....	....	....	....	6.30	5.20	0.81	2.70	4 70	3.40	......	......	8.21	......	......
1837....	1 60	2.50	2.40	0.90	2.20	3.50	2.00	7.50	5.70	0.50	2.90	9.00	5.50	13.00	9.10	13.10	40.70
1838....	2.74	1.85	2.10	2.80	1.10	4.50	2.40	1.15	16.40	4.60	3.70	1.60	6.00	8.05	24.70	6.19	44.94
1839....	8.10	4.70	5.30	3.70	5.50	4.80	4.50	14.20	1.20	6.80	3.60	9.60	14.50	23.50	11.60	22.40	72.00
1840....	1.60	3.20	4.00	5.90	5.91	11.10	13.50	5.50	7.60	6.40	2.80	6.60	15.81	30.10	16.80	11.40	74.10
1841....	11.00	3.20	8.50	6.30	4.20	3.60	3.61	8.90	6.40	1 50	2.50	5.60	19.00	16.11	10.40	19.80	65.30
1842....	5.10	5.60	2.46	5.50	4.70	9.50	13.50	8.30	1.20	3.50	4.10	3.60	12.66	31.30	8.80	14.30	67.06
1843....	0.51	4.00	3.30	3.10	6.20	2.20	3.70	8.60	3.20	4.50	2.20	5.80	12.60	14.50	9.90	10.31	47.31
1844....	3.40	1.50	4.50	1.41	2.92	4.85	3.58	8.00	4.76	2 25	3.74	3.77	8.83	13.43	10.75	8.67	41.68
1845....	1.88	2.42	1.20	2.48	7.70	6.06	3.26	9.98	4.65	2.00	2.10	4.04	11.38	19.30	8.75	8.34	47.77
1846....	3.55	2.97	3.33	3.28	4.36	4.67	5.27	2.48	5.31	2.68	9.35	3.14	10.97	12.42	17.34	9.66	50.39
1847....	2.75	2.65	5.05	1.86	3.62	4.07	3.47	8.93	7.87	1.92	4.10	2.64	10.53	16.47	13.89	8.04	48.93
1848....	0.77	3.20	3.18	1.39	3.68	1.07	4.19	3.47	0.85	4.13	1.30	2.21	8.25	8.73	6.28	6.18	29.44

FORT MONROE, VIRGINIA—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	1.70	2.10	4.06	0.98	3.11	0.70	4.13	1.98	1.99	2.91	4.86	4.12	8.15	6.81	9.76	7.92	32.64
1850....	4.32	2.20	3.04	2.47	3.24	1.12	18.01	3.27	2.31	0.76	1.92	7.10	8.75	22.40	4.99	13.62	49.76
1851....	3.21	2.24	2.23	1.33	2.20	2.51	3.00	4.00	0.76	2.02	2.45	0.91	5.76	9.51	5.23	6.36	26.86
1852....	0.90	1.18	1.82	2.72	1.53	1.89	3.83	4.90	1.55	1.92	2.06	2.94	6.07	10.62	5.53	5.05	27.27
1853....	1.54	1.90	1.41	2.47	2.08	0.56	5.79	1.93	1.11	0.80	5.25	1.90	5.96	8.28	7.16	5.34	26.74
1854....	4.00	1.90	2.00	1.80	0.82	1.30	1.60	0.60	1.00	1.80	1.30	1.20	4.62	3.50	4.10	7.10	19.32
Mean.	3.48	3.01	3.74	3.01	4.17	4.41	6.10	6.29	4.68	3.61	3.58	4.81	10.92	16.80	11.87	11.30	50.89
	3.26	2.74	3.33	2.80	3.64	3.78	5.56	5.70	3.93	2.82	3.41	4.17	9.77	15.08	10.16	10.17	45.18

The measurements of rain at *Fort Monroe* for the last four years differ so widely from those of previous years as to lead to the inference that the gauge is defective or that the observations were inaccurate. The first summary is of observations previous to 1851.

FORT JOHNSTON, NORTH CAROLINA.

1844....	3.40	1.50	4.00	0.70	1.57	3.28	8.43	7.90	9.86	2.42	4.04	2.95	6.27	19.61	16.32	7.85	50.05
1845....	1.85	2.00	2.99	0.48	3.94	1.61	1.93	....	....	....	....	....	7.41	.....	......	......	......
	2.64	1.75	3.49	0.59	2.75	2.44	5.18	7.90	9.86	2.42	4.04	2.95	6.83	15.52	16.32	7.34	46.01

FORT MOULTRIE, SOUTH CAROLINA.

1842....	....	....	....	....	....	....	....	....	....	....	2.86	3.45	......	......	......	......	......
1843....	2.07	2.09	10.52	0.02	2.38	3.24	5.54	7.76	5.39	0.65	0.55	2.61	12.92	16.52	6.59	6.77	42.80
1844....	2.66	1.69	4.07	1.20	1.87	1.51	4.85	4.32	6.05	0.91	3.40	1.45	7.14	10.68	10.36	5.80	33.98
1845....	3.42	0.95	1.95	0.10	6.53	2.19	6.05	5.90	2.60	7.55	0.20	6.07	8.58	14.14	10.35	10.44	43.51
1846....	4.97	3.51	5.50	3.35	1.90	3.25	4.60	9.05	3.20	....	0.33	1.35	10.75	16.90	......	9.83	......
1847....	1.69	0.20	7.66	1.52	9.45	5.50	13.25	14.70	6.64	0.00	0.45	4.25	18.63	33.45	7.09	6.14	65.31
1848....	0.75	5.85	1.75	3.80	7.10	7.85	5.85	6.32	9.40	5.25	1.25	1.70	12.65	20.02	15.90	8.30	56.87
1849....	0.25	1.45	1.50	0.50?	4.60	2.60	7.60	10.80	4.70	3.99	0.71	1.08	6.60	21.00	9.40	2.78	39.78
1850....	2.95	2.83	6.01	2.59	4.10	0.78	2.32	4.03	2.68	0.88	1.99	4.64	12.70	7.13	5.55	10.42	35.80
1851....	3.67	2.51	1.93	1.65	0.63	8.25	8.57	5.89	0.29	1.28	3.34	1.10	4.21	22.74	4.91	7.28	39.11
1852....	0.51	1.21	4.35	2.96	4.17	8.86	5.43	4.15	11.70	1.20	2.12	4.60	11.48	18.44	15.02	6.32	51.26
1853....	1.90	2.80	3.30	1.06	2.53	1.55	10.88	2.20	8.10	4.05	4.89	2.39	6.89	14.63	17.04	7.09	45.65
1854....	3.80	2.84	0.25	2.20	3.70	4.20	5.69	3.82	9.24	1.12	1.16	1.74	6.15	13.71	11.52	8.38	39.76
Mean ..	2.39	2.33	4.06	1.75	4.08	4.15	6.72	6.58	5.83	2.44	1.79	2.80	9.89	17.45	10.06	7.52	44.92

AUGUSTA ARSENAL, GEORGIA.

1844....	....	....	....	....	0.57	1.41	1.24	0.53	2.34	0.27	1.88	1.76	......	3.18	4.49	......	......
1845....	1.90	0.62	0.78	0.05	1.07	1.20	0.35	2.62	0.53	3.51	0.50	6.00	1.90	4.17	4.54	8.52	19.13?
1846....	3.59	4.25	8.60	2.89	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean...	2.74	2.43	4.69	1.47	0.82	1.30	0.79	1.57	1.43	1.89	1.19	3.88	6.78	3.66	4.51	8.05	23.00

OGLETHORPE BARRACKS, GEORGIA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	1.27	2.03	12.51	0.84	2.01	5.69	5.33	7.16	1.54	0.60	0.96	3.57	15.36	18.18	3.10	4.26	40.90
1844....	3.61	1.10	8.77	3.07	2.47	8.19	13.92	4.10	6.08	0.57	2.78	2.90	14.31	26.21	9.43	7.61	57.56
1845....	2.85	0.05	2.21	0.20	5.30	2.37	2.80	9.94	2.21	5.94	0.22	3.96	7.71	15.11	8.37	6.06	38.05
1846....	6.54	4.70	5.06	3.72	1.36	5.81	7.08	6.44	7.17	....	...	....	10.14	19.33	......	......	......
1850....	....	3.03	7.00	6.72	6.00	1.20	14.80	12.67	3.37	0.70	0.80	3.27	19.72	28.67	4.87	......	......
Mean ..	3.57	2.18	7.11	2.91	3.43	4.65	8.79	8.06	4.07	1.95	1.19	3.42	13.45	23.50	7.21	9.17	53.33

FORT MARION, ST. AUGUSTINE, FLORIDA.

1844....	1.94	1.00	4.71	1.26	2.97	2.18	2.37	2.68	7.13	0.49	0.73	1.55	8.94	8.13	8.35	4.49	29.91
1845....	1.98	0.50	2.05	0.60	2.63	0.59	4.11	....	4.81	6.06	0.43	3.08	5.28	......	11.31	5.56	......
1846....	4.13	4.32	1.67	1.70	1.77	6.28	....	....	....	....	....	....	5.14	......	......	......	......
1851....	....	1.71	0.93	2.68	0.64	8.01	3.23	3.38	5.60	0.71	2.72	1.60	4.25	14.62	9.03	......	......
1852....	0.32	0.59	....	....	....	....	....	....	....	....	....	...	......	......	......	......	......
Mean ..	2.09	1.63	2.34	1.56	2.00	4.27	3.24	3.03	5.85	2.42	1.29	2.08	5.90	10.54	9.56	5.80	31.80

FORT SHANNON, FLORIDA.

1841*...	0.49	1.30	6.17	3.60	2.00	8.45	5.80	11.32	6.50	4.29	2.56	1.65	11.77	25.57	13.25	3.44	54.13
1842....	0.43	2.84	1.02	1.70	4.49	5.87	10.55	6.30	4.99	4.67	1.97	0.84	7.21	22.72	11.63	4.11	45.67
1843....	1.87	3.79	14.28	2.12	2.09	5.31	5.70	5.18	1.50	2.39	0.28	1.76	15.39	16.19	4.17	7.42	43.17
Mean ..	0.93	2.64	7.16	2.47	2.86	6.54	7.35	7.60	4.33	3.78	1.60	1.42	12.49	21.49	9.71	4.99	48.68

* January and February at *Fort Ried*, a few miles distant.

FORT PIERCE, (CAPRON,) FLORIDA.

1853....	....	0.42	1.73	0.63	1.14	2.75	7.23	4.47	3.15	2.46	....	....	3.50	14.45	......	......	.....
1852....	....	....	3.05	4.80	1.30	6.85	8.00	4.30	7.00	0.60	1.82	2.30	9.15	19.15	9.42	.....	......
1853....	5.00	2.20	5.15	2.45	4.55	29.35	2.50	13.50	17.50	10.00	3.41	0.75	12.15	45.35	41.00	7.98	106.48
1854....	3 55	3.40	1.05	7.00	5.70	6.63	4.97	2.63	3.30	5.47	1.41	1.68	13.75	14.23	10.18	8.63	46.79
1855....	4.81	2.56	2.80	1.14	5.54	....	....	....	....	....	....	....	9.49	......	......	......	......
Mean ..	4.45	2.72	3.01	3.85	4.27	14.28	5.16	6.81	9.27	5.36	2.21	1.59	11.13	26.25	16.84	8.76	62.98

The first quantities given for 1853 are at *New Smyrna*, and are not included in the summary.

KEY WEST, FLORIDA.

1837....	1.83	0.92	0.75	2.42	5.35	1.68	1.65	7.50	5.80	6.05	3.05	1.65	8.52	10.83	14.90	4.40	38.65
1838....	0.05	0.05	0.00	0.02	0.82	4.86	1.15	3.05	3.47	0.40	5.75	0.87	0.84	9.06	9.62	0.97	20.49
1844....	....	1.23	0.13	0.05	1.36	7.13	1.26	2.63	8.50	14.07	0.44	1.28	1.54	11.02	23.01	2.51	38.08
1845....	4.42	0.14	3.67	2.06	4.33	6.07	5.00	....	....	....	....	....	10.10	......	......	......	......
1850....	....	....	....	....	....	....	2.02	3.38	3.93	4.18	0.01	2.10	......	......	7.32	......	......
1851....	2.40	0.88	1.50	1.80	5.32	9.24	3.24	6.80	14.00	9.45	2.30	2.64	8.62	19.28	25.75	5.92	59.57

KEY WEST, FLORIDA—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1852 ...	1.82	3.67	8.74	2.17	0.40	8.51	6.16	6.03	6.22	4.18	3.00	3.41	11.31	20.70	13.40	8.90	54.31
853....	2.80	0.35	12.06	....	0.94	18.11	2.33	5.02	4.39	1.69	1.08	0.89	......	25.46	7.16	4.04	......
1854....	1.77	2.55	0.51	2.99	3.14	4.54	3.45	5.83	9.70	4.73	0.25	8.45	6.64	13.82	14.68	12.77	47.91
1855....	3.94	0.83	2.87	0.24	3.55	4.47	....	....	...	....	....	....	6.66	......	.....	......	......
Mean...	2.86	1.38	4.21	1.55	2.58	8.29	3.35	4.95	7.79	6.38	1.18	3.13	8.34	16.59	15.35	7.37	47.65

A register of the fall of rain at Key West was kept by W. A. Whitehead, esq., and A. Gordon, esq., collectors of customs, for 1834, 1835, 1837, and 1838, giving for those years 36.1, 30.1, 38.7, and 20.5 inches respectively. Two of these years are given in the table to show the characteristic deficiency in the winter months—they are not included in the summary.

FORT MYERS, FLORIDA.

1851....	7.61	3.38	2.09	4.57	2.71	18.51	7.35	3.61	8.01	1.66	0.55	1.50	9.37	29.47	10.22	12 49	61.55
1852....	1.54	1.00	11.77	5.70	3.25	18.13	12.02	7.60	9.54	0.40	0.93	2.34	20.72	37.75	10.92	4.88	74.27
1853....	4.29	1.60	2.52	2.20	1.79	25.58	6.35	10.38	22.10	1.49	0.79	3.55	5.51	42.31	24.47	9.44	82.73
1854....	1.15	4.70	0.20	2.75	5.65	6.75	9.70	9.90	1.50	0.35	0.45	1.65	8.60	26.35	2.30	7.50	44.75
1855....	3.20	0.55	6.40	0.50	3.00	10.20	6.80	....	....	....	....	....	9.90	......	......	.....	......
18'5....	5.60	1.72	....	....	3.56	8.33	....	....	....	....	....	....	......	......	......	......	......
Mean...	3.90	2.16	4.60	3.14	3.33	14.50	8.45	7.87	10.29	0.93	0.69	2.26	11.07	30.91	11.96	8 32	62.26

FORT BROOKE, FLORIDA.

1840....	2.60	1.00	3.20	1.90	8.85	6.72	24.52	23.40	7.75	4.80	4.56	0.56	13.95	54.64	17.11	4.16	89.86
1841....	0.88	2.54	2.80	0.30	0.30	8.95	10.60	8.10	5.61	3.31	3.10	2.40	3.40	27.65	12.02	5.82	48.89
1842....	0.30	2.83	0.10	2.70	2.80	2.90	11.00	12.50	4.00	3.20	2.00	1.63	5.60	26.40	9.20	4.76	45.96
1843....	3.37	5.70	7.20	1.30	2.00	6.90	8.61	6.60	9.90	2.60	0.80	1.30	10.50	22.11	13.30	10.37	56.28
1844....	1.10	3.30	1.80	0.10	5.50	4.70	7.70	15.77	3.50	2.20	3.10	2.90	7.40	28.17	8.80	7.30	51.67
1845....	3.80	0.15	0.40	0.20	4.03	4.51	12.30	8.23	12.69	2.14	1.00	3.61	4.63	25.04	15.83	7.56	53.06
1846....	3.01	4.97	7.73	2.93	4.44	8.17	8.80	9.03	1.33	3.11	0.18	0.50	15.10	26.00	4.62	8.48	54.20
1847....	2.24	3.25	4.38	1.61	1.00	4.68	7.22	4.80	10.23	2.01	0.28	4.50	6.99	16.60	12.52	9.99	46.10
1848....	0.36	0.21	0.05	1.23	2.30	10.59	21.31	14.80	....	....	....	....	3.58	46.70	......	......	......
1849....	....	....	....	....	....	....	8.74	6.32	3.55	1.74	0.77	1.13	......	......	6.06	......	......
1850....	1.44	5.92	3.50	1.65	3.98	2.05	11.98	5.43	2.71	2.89	....	....	9.13	19.46	......	......	......
1851....	....	....	....	....	2.03	6.57	3.18	6.35	6.93	1.85	2.10	3.00	......	16.10	10.88	......	......
1852....	0.95	0.85	6.40	3.05	3.06	13.20	10.95	14.30	10.00	0.30	3.20	3.00	12.51	38.45	13.50	4.80	69.26
1853....	4.55	1.60	3.35	0.75	0.30	9.09	4.12	4.67	4.86	1.70	2.90	7.38	4.40	17.88	8.96	13.53	44.77
1854....	3.83	6.89	2.44	8.82	6.21	9.44	15.53	11.23	4.68	1.77	1.75	4.85	17.47	36.20	8.20	15.57	77.44
1855....	2.34	2.88	3.89	0.75	1.77	7.07	....	....	....	....	....	....	6.41	......	......	......	......
Mean ..	2.20	3.01	3.37	1.95	3.24	7.04	11.10	10.10	6.23	2.40	2.00	2.83	8.56	28.24	10.63	8.04	55.47

FORT MEADE, FLORIDA.

1851....	....	....	....	....	3.00	8.67	5.73	6.47	7.67	2.04	1.28	2.37	......	20.87	10.99	......	......
1852....	0.69	0.27	2.08	2.13	2.31	11.71	11.41	6.35	6.60	1.32	0.15	1.32	6.52	29.47	8.07	2.28	46.34
1853....	1.22	0.55	0.99	0.03	0.15	3.54	4.52	2.39	2.12	0.31	0.78	1.67	1.17	10.45	3.21	3.44	18.27
1854....	1.30	2.21	1.85	3.19	10 57	7.24	8.55	10.20	2.99	2.34	0.02	....	15.61	25.99	5.25	.....	......
Mean ..	1.07	1.01	1.64	1.78	5.34	7.79	7.55	6.35	4.85	1.50	0.56	1.79	8.76	20.68	6.91	3.87	40.22

CEDAR KEYS, FLORIDA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1840....	....	....	....	....	....	....	1.10	15.05	6.30	1.70	3.30	1.02	......	......	11.30	......	......
1841....	4.70	1.80	3.40	1.40	1.00	11.50	3.10	10.50	4.00	5.60	5.10	2.10	5.80	25.10	14.70	8.60	54.20
1842 ...	0.90	8.80	0.20	1.40	0.80	1.30	8.00	10.10	4.60	4.10	1.10	2.90	2.40	19.40	9.80	12.60	44.20
Mean ..	2.80	5.30	1.80	1.40	0.90	6.40	4.07	11.88	4.97	3.80	3.17	2.01	4.10	22.35	11.94	10.11	48.50

FORT BARRANCAS, PENSACOLA, FLORIDA.

1842...	....	....	....	....	....	....	12.29	1.48	13.04	2.30	6.46	2.18	......	......	21.80	......	.....
1843....	2.54	2.77	7.85	5.86	0.70	13.04	4.95	7.04	5.87	1.46	5.78	6.30	14.41	25.03	13.11	9.61	62.16
1844....	5.76	0.91	7.78	1.98	5.52	5.11	7.67	6.59	2.61	1.99	11.57	2.09	15.28	19.37	16.17	8.76	59.58
1845....	4.17	1.16	5.00	0.42	3.69	1.37	3.46	....	....	....	2.93	4.14	9.11	......	......	9.47	......
1846....	8.28	10.46	5.80	6.34	....	....	14.48	10.62	2.65	0.48	4.73	2.36	......	......	7.86	21.10	......
1847....	4.73	8.93	10.95	5.85	8.90	....	....	....	....	....	....	....	25.70	......	......	......	......
1851....	3.50	8.03	0.60	4.52	4.20	0.96	1.11	6.15	1.66	....	8.39	2.54	9.32	8.22	......	24.07	......
1852....	0.97	3.40	....	....	....	....	8.02	16.25	0.65	1.10	7.80	3.51	......	......	9.55	7.88	......
1853....	4.15	6.80	4.82	0.51	4.00	4.51	3.80	2.95	12.25	....	....	1.25	9.33	11.26	......	12.20	......
1854....	3.45	5.55	7.21	0.50	3.47	3.39	5.43	6.81	3.47	7.14	0.76	3.74	11.18	15.63	11.37	12.64	50.82
1855....	1.09	1.44	2.86	1.00	1.92	4.21	....	....	....	....	....	....	5.78	......	......	......	......
Mean...	3.87	4.95	5.87	2.94	4.05	4.66	6.80	7.23	5.25	2.41	6.05	2.90	12.86	18.69	13.71	11.72	56.98

FORT MITCHELL,* ALABAMA.

1836....	....	....	....	....	....	....	2.10	2.40	0.64	0.11	3.86	1.48	......	......	4.61	......	......
1837....	2.29	5.52	4.61	6.70	6.30	7.08	1.40	6.17	1.81	....	....	....	17.60	14.65	......	9.29	46.15

* On the Coosa river, near Montgomery, latitude 32° 25′.

MOUNT VERNON ARSENAL, ALABAMA.

1840....	....	....	....	....	....	....	....	....	....	5.73	1.70	2.69	......	......	......	......	......
1841....	12.84	4.86	9.28	4.65	7.23	4.60	....	....	....	....	....	....	21.16	......	......	......	......
1843...	3.81	5.90	9.22	5.17	0.72	16.67	6.11	2.18	3.49	5.04	6.27	11.80	15.11	24.96	14.80	21.51	76.38
1844 ...	....	....	....	....	5.92	9.38	5.03	8.29	0.98	2.90	10.57	2.54	......	22.70	14.45	......	......
1845....	11.30	8.37	4.52	1.79	2.54	2.19	2.73	6.48	5.40	11.87	4.99	6.34	8.85	11.40	22.26	26.01	68.52
1846....	6.82	5.31	5.63	11.51	5.49	5.57	9.42	4.74	2.12	0.40	3.75	4.60	22.63	19.73	6.27	16.73	65.36
1847....	6.83	7.70	6.45	3.77	3.94	4.05	11.92	7.39	5.85	0.42	4.10	9.01	14.16	23.36	10.37	23.54	71.43
1848....	3.90	5.17	3.50	2.78	2.15	6.35	3.10	4.39	2.99	1.54	7.94	5.74	8.43	13.84	12.47	14.81	49.15
1849...	2.89	2.44	1.36	3.06	6.11	9.25	14.56	11.15	0.65	13.00	10.54?	4.22	10.53	34.96	24.19	9.55	79.23
1850 ...	9.49	4.81	2.09	4.22	6.72	2.01	6.44	5.13	0.15	0.85	2.32	5.22	13.03	12.58	3.32	19.62	48.55
1851....	3.89	7.26	0.77	1.14	3.44	5.35	1.84	8.60	4.42	2.07	6.99	2.91	5.35	15.88	13.48	14.06	48.77
1852....	1.92	1.95	1.52	6.24	6.75	1.56	1.92	9.64	0.70	2.40	9.74	7.15	14.51	13.12	12.84	11.02	51.49
1853*...	11.18	8.10	16.45	6.59	5.34	2.00	12.64	8.95	11.09	8.44	2.70	13.09	28.38	23.59	22.23	32.37	106.57?
1854....	11.01	12.83	6.22	1.96	4.45	6.72	6.13	2.29	6.82	0.81	2.34	0.73	12.63	15.34	9.97	24.57	62.51
Mean ..	6.80	6.04	4.59	4.21	4.62	6.14	6.30	6.40	3.05	3.92	6.18	5.25	13.42	18.84	13.15	18.09	68.50

* The measurements for this year are rejected from the summary for internal evidence of error, as well as by the amount in comparison with other years.

PASS CHRISTIAN AND EAST PASCAGOULA, MISSISSIPPI.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	....	....	....	....	....	....	8.70	2.39	11.19	2.39	....	....	......	......	......	......	......
1844....	....	....	....	.. .	....	....	7.99	4.61	0.22	1.54	....	....	......	......	......	......	......
1845....	....	....	....	....	....	....	2.70	....	....	....	....	....	......	......	......	......	......
1849....	....	....	....	....	....	....	....	5.94	2.12	4.82	1.83	....	......	......	8.77	......	.... .
1850....	....	....	....	....	....	....	....	1.76	1.03	....	....	....	......	......	......	......	......
1851....	....	....	....	....	2.25	1.44	6.14	5.32	5.83	....	....	....	......	12.90	......	......	.....
1852....	....	....	....	....	8.85	1.85	6.04	8.54	0.65	....	....	....	......	16.43	......	......	......
1853....	....	....	....	....	....	....	10.72	3.61	6.83	....	....	....	......	......	......	......	......
Mean ..	....	....	....	....	5.55	1.65	7.05	4.60	3.98	2.92	....	....	......	13.25	......	......	......

FORT WOOD, LOUISIANA.

1843 ...	...	....	....	1.50	0.22	18.24	8.61	2.04	5.66	2.39	6.77	6.42	......	28.89	14.82	......	......
1844....	4.85	0.41	3.48	0.39	5.31	1.89	4.28	8.11	1.50	4.06	10.68	1.88	9.18	14.28	16.24	7.14	46.84
1845....	5.42	1.28	5.35	1.42	7.31	0.95	4.01	3.78	5.24	10.49	....	....	14.08	8.74	......	......	......
1846....	6.45	3.94	10.61	18.17	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	5.57	1.88	6.48	5.37	4.28	7.03	5.63	4.64	4.13	5.65	5.82	4.15	16.13	17.30	15.60	11.60	60.63

FORT PIKE, LOUISIANA.

1843....	....	....	....	4.26	1.55	29.56	18.22	6.01	15.26	4.14	6.49	7.31	......	53.79	25.89	......	......
1844....	4.03	0.80	3.50	0.86	9.52	1.18	5.76	3.31	1.61	3.30	7.14	3.25	13.88	10.25	12.05	8.08	44.26
1845....	4.42	2.23	3.65	0.99	2.69	0.73	1.40	....	...	....	. ..	3.30	7.33	......	......	......	......
1846....	8.40	4.19	14.25	13.75	....	....	....	....	.. .	....	...	....	......	......	.... .	......	......
Mean ..	5.62	2.41	7.13	4.98	4.59	10.49	8.46	4.66	8.43	3.72	6.81	4.62	16.70	23.61	18.96	12.65	71.92

NEW ORLEANS BARRACKS, LOUISIANA.

1839....	8.10	3.40	2.19	2.10	2.02	3.11	9.86	4.80	0.12	2.40	3.92	4.40	6.31	17.77	6 44	15.90	46.42
1840....	0.11	2.01	1.09	3.10	4.80	7.10	5.60	3.10	1 80	7.80	5.55	2.22	8.99	15.80	15.15	4.34	44.28
1841....	19.50	5.10	6.90	5.10	1.70	3.10	0.89	3.41	2.87	2.41	0.11	9.44	13.70	7.40	5.39	34.04	60.53
1842....	4.21	3.51	2.71	5.20	1.12	1.13	4.52	7.40	4.80	1.50	3.25	1.70	9.03	13.05	9.55	9.42	41.05
1843....	4.00	3.80	5.31	2.67	0.45	14.57	...	....	....	....	1.93	6.02	8.43	......	......	13.82	......
1844....	4.41	0.73	3.90	0.53	3.16	2.75	....	....	....	....	7.78	1.35	7.59	15.35	9.54	6.49	38.97
1845....	6.24	1.19	5.16	1.99	8.06	3.20	....	....	....	....	....	....	15.21	......	......	......	......
1846 ...	....	....	7.88	10.70	5.38*	1.85*	8.86	....	....	....	....	....	24.96	......	......	......	......
1847....	7.71	3.77	3.40	4.63	4.80	3.43	5.06	6.81	2.83	0.75	2.59	7.73	12.83	15.30	6.17	19.21	53.51
1848 ...	5.42	1.28	1.97	3.92	4.75	9.36	7.79	8.37	0.80	2.31	8.83	1.86	10.64	25.52	11.94	8.56	56.66
1849....	3.55	2.45	2.83	2.43	8.01	3.79	11.09	....	....	....	....	....	13.27	......	.....	......	... ..
1850....	7.40	4.53	2.27	4.10	6.20	8.92	6.31	....	....	0.96	1.58	3.46	12.57	......	......	15.39	......
1851....	3.82	3.18	1.20	3.49	....	....	....	....	....	3.70	9.00	2.69	......	......	......	9.69	......
1852....	0.80	1.45	4.24	5.25	...	....	....	....	....	2.83	7.00	5.30	......	......	......	7.55	......
1853....	3.20	4.20	7.38	1.88	2.80	1.86	....	....	....	....	....	....	12.06	... ..	......	......	......
Mean ..	5.61	2.90	3.90	3.29	4.10	4.97	6.66	5.65	2.20	2.74	4.68	4.20	11.29	17.28	9.62	12.71	50.90

* Incomplete measurements.

BATON ROUGE, LOUISIANA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	2.06	2.39	6.54	3.08	2.78	7.62	8.20	2.57	9.16	2.53	4.28	9.81	12.40	18.39	16.02	14.26	61.07
1844....	5.40	....	3.10	0.50	3.30	3.50	3.70	5.60	1.10	3.60	7.06	2.20	6.90	12.80	11.76	......	......
1845....	4.90	1.80	5.90	4.80	3.10	4.40	6.40	2.30	3.60	3.10	5.00	5.30	13.80	13.10	11.70	12.00	50.60
1846....	4.80	5.70	12.30	17.20	13.20	16.00	14.40	15.90	5.20	0.80	6.20	4.70	42.70	46.50	12.20	15.20	116.60
1847....	11.60	....	....	....	....	2.30	3.30	4.20	....	....	....	....	......	......	......	......	......
1848....	....	....	....	....	....	8.60	11.80	12.10	0.50	1.38	6.80	7.60	......	32.50	8.68	......	......
1849....	3.20	6.20	1.30	2.50	....	....	10.92	5.38	2.24	6.00	5.03	2.50	......	......	13.27	11.90	......
1850....	16.02	7.45	3.13	9.40	4.19	9.01	4.28	3.75	3.58	1.03	....	9.28	16.72	17.04	......	33.37	......
1851....	0.97	5.27	1.54	2.26	1.42	2.06	2.68	7.96	0.59	2.32	8.91	5.36	5.22	12.70	11.82	11.60	41.34
1852....	1.56	6.73	2.19	8.29	6.08	1.33	5.64	2.26	3.30	2.81	9.32	3.95	16.56	9.23	15.43	12.24	53.46
1853....	4.48	4.19	4.67	0.57	4.55	2.05	11.18	4.93	....	1.35	....	5.00	9.79	18.16	......	......	......
1854....	2.85	5.50	6.15	3.58	8.05	4.00	6.55	7.41	9.88	4.38	0.45	1.82	17.78	17.96	14.71	10.17	60.62
Mean...	5.26	4.91	4.68	5.22	5.18	5.52	7.42	6.20	3.91	2.67	5.90	5.23	15.08	19.14	12.48	15.40	62.10

FORT JESUP, LOUISIANA.

1836....	7.05	3.32	5.78	5.53	3.93	5.10	3.09	4.29	4.43	2.50	1.40	3.43	15.24	12.48	8.33	13.80	49.85
1837....	1.75	2.08	8.69	1.62	2.55	2.81	4.20	4.27	9.11	7.32	0.30	4.84	12.86	11.28	16.73	8.67	49.54
1838....	5.82	2.60	4.60	10.80	5.32	1.50	0.67	3.55	0.51	3.85	2.40	5.60	20.72	5.72	6.76	14.02	47.22
1839....	3.72	7.40	3.71	2.50	4.10	2.60	6.23	1.40	0.20	5.10	4.20	4.20	10.31	10.23	9.50	15.32	45.36
1840....	3.40	1.96	2.41	3.25	2.90	6.95	5.18	0.85	1.67	1.44	3.18	3.93	8.56	12.98	6.29	9.29	37.12
1841....	7.83	0.06	5.89	2.98	5.93	15.70	0.45	5.60	2.54	6.11	0.67	2.19	14.80	21.75	9.32	10.08	55.95
1842....	2.86	5.79	4.03	5.59	1.40	1.64	3.90	3.17	4.41	2.52	2.86	3.71	11.02	8.71	9.79	12.36	42.27
1843....	2.20	1.41	3.25	5.60	4.42	3.30	7.66	1.34	2.64	5.79	8.30	7.08	13.27	12.30	16.73	10.69	52.99
1844....	4.10	1.20	5.30	6.60	3.05	5.11	1.77	2.24	2.83	2.81	3.87	2.54	14.95	9.12	9.51	7.84	41.42
1845....	8.32	1.80	3.55	4.12	4.43	1.43	0.50?	....	1.90?	0.60?	2.50	2.80	12.10	......	......	12.92	......
Mean ..	4.70	2.76	5.02	4.86	3.80	4.61	3.36	2.97	3.02	3.80	2.92	4.03	13.68	10.94	9.74	11.49	45.85

FORT TOWSON, INDIAN TERRITORY.

1836....	...	....	....	....	....	5.90	1.30	2.30	3.70	6.20	2.80	1.40	9.50	12.70	......	......	......
1837....	1.00	1.60	6.00	2.50	6.30	6.10	7.00	1.10	5.40	3.10	2.10	1.60	14.80	14.20	10.60	4.20	43.80
1838....	4.20	2.10	1.60	1.90	6.70	0.70	2.10	3.70	0.30	2.80	5.40	2.90	10.20	6.50	8.50	9.20	34.40
1839....	7.10	1.35	5.20	1.60	7.50	17.50	6.40	5.10	2.10	3.90	7.00	1.30	14.30	29.90	12.00	9.75	66.00
1840....	4.40	3.00	3.70	13.60	2.30	1.60	4.80	3.00	6.20	8.60	3.00	1.50	19.60	9.40	17.80	8.90	55.70
1841....	3.60	0.20	7.30	3.20	3.30	7.00	....	3.50	6.50	9.90	9.20	8.30	13.80	......	25.60	12.10	......
1842....	2.70	7.50	7.40	10.30	8.80	14.20	4.70	4.00	4.00	1.85	2.06	5.85	26.50	22.90	7.91	16.05	73.36
1843....	2.78	0.25	3.35	7.10	9.26	1.91	4.40	5.72	4.40	6.56	9.37	0.80	19.71	12.03	20.33	3.83	55.90
1844....	3.45	2.08	4.56	10.38	3.25	2.66	5.35	7.96	1.30	2.77	1.73	1.05	18.19	15.97	5.80	6.58	46.54
1845....	3.00	0.70	5.73	3.49	5.17	6.35	0.00	3.26	2.48	4.90	1.19	1.81	14.39	9.61	7.57	5.51	37.08
1846....	3.20	2.75	2.00	5.99	....	....	....	....	....	....	....	....	......	......	......	......	......
1849....	....	....	....	....	...	6.21	10.76	3.57	2.54	3.66	2.91	6.17	......	20.54	9.11	......	......
1850....	4.03	4.07	2.85	4.79	2.04	5.06	3.29	4.39	2.66	5.19	6.21	5.07	9.68	12.73	14.06	13.17	49.64
1851....	1.70	11.09	2.66	2.52	6.33	5.04	....	7.34	0.01	1.13	3.69	....	11.51	......	4.83	......	......
1852....	....	....	....	....	.	....	....	....	....	4.88	4.84	0.77	......	......	......	......	......
1853....	1.72	2.90	3.88	4.99	9.09	0.90	5.38	0.49	6.11	3.40	1.97	1.27	17.96	6.77	11.48	5.89	42.10
1854....	1.01	2.00	5.10	2.22	....	....	...	....	....	....	....	....	......	......	......	......	......
Mean...	3.13	2.97	4.38	5.33	5.84	5.78	4.62	3.96	3.41	4.59	4.23	2.84	15.55	14.36	12.23	8.94	51.08

FORT WASHITA, INDIAN TERRITORY.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	....	....	....	....	....	....	....	0.60	8.61	3.80	7.56	1.85	......	......	19.97	......	......
1844....	1.77	2.87	4.35	5.05	4.59	4.43	2.76	1.67	2.25	3.80	2.29	0.17	13.99	8.86	8.34	4.81	36.00
1845....	1.35	0.66	5.48	5.04	4.50	2.62	0.33	4.12	2.65	3.65	2.40	1.90	15.02	7.07	8.70	3.91	34.70
1846....	4.40	2.73	2.50	3.24	4.70	10.23	1.14	2.30	9 60	2.35	3.55	3.01	10.44	13.67	15.50	10.14	49.75
1847....	1.28	4.10	3.61	1.60	3.05	3.09	6.55	5.85	2.40	0.41	4.65	0.86	8.26	15.49	7.46	6.24	37.45
1848....	1.38	1.54	1.70	7.91	1.97	4.30	3.73	0.35	2.45	2.55	4.90	2.50	11.58	8.38	9.90	5.42	35.28
1849....	2.65	2.65	2.69	6.96	14.61	4.00	13.40	4.00	3.74	4.42	2.50	2.67	24.66	21.40	10.66	7.97	64.29?
1850....	3.10	0.68	2.49	3.33	4.22	5.67	3.30	4.80	2.30	2.56	5.14	3.75	11.04	13.77	10.00	7.53	42.34
1851....	0.20	5.70	1.35	2.95	4.47	4.20	0.10	1.40	0.60	2.60	5.15	2.80	8.77	5.70	8.35	8.70	31.52
1852....	1.37	4.80	5.40	1.62	4.61	5.48	2.90	4.45	6.43	5.95	3.77	0.29	11.63	12.83	16.15	6.46	47.07
1853....	0.62	2.67	0.75	1.39	7.30	2.29	4.48	0.95	4.28	3.50	0.80	1.43	9.44	7.72	8.58	4.72	30.46
1854....	0.01	3.30	5.53	4.21	11.73	9.17	0.59	1.39	1.17	1.19	3.57	1.42	21.47	11.15	5.93	4.73	43.28
Mean ..	1.65	2.88	3.27	3.94	5.98	5.04	3.57	2.66	3.87	3.06	3.85	1.89	13.19	11.27	10.78	6.42	41.66

FORT SMITH, ARKANSAS.

1837....	....	....	....	....	3.35	8.91	5.00	0.20	6.90	1.40	3.50	2.30	14.11	11.80	......	......	......
1838....	0.60	0.20	0.80	2.40	4.50	1.50	3.95	1.95	1.10	4.00	4.80	1.50	7.70	7.40	9.90	2.30	27.30
1839....	1.45	0.77	4.75	2.05	1.75	8.50	2.42	5.55	4.45	7.17	2.18	1.55	8.55	16.47	13.80	3.77	42.59
1840....	1.70	2.65	0.80	8.50	4.43	1.90	7.41	0.67	6.54	7.91	2.96	2.76	13.73	9.98	15.41	7.11	46.23
1841....	1.36	....	1.44	1.49	3.28	6.58	0.30	7.17	3.82	8.72	12.57	4.70	6.21	14.05	25.11	......	......
1842....	3.82	9.99	1.13	4.76	4.33	4.39	2.08	2.63	1.62	0.78	0.90	2.36	10.22	9.10	3.30	16.17	38.79
1843....	1.51	0.26	2.29	5.49	4.85	6.80	3.26	2.87	3.42	2.14	3.51	2.07	12.63	12.43	9.07	3.84	37.97
1844....	1.30	3.53	2.41	14.28	3.12	1.10	1.37	0.52	2.08	2.01	0.91	0.30	19.81	2.99	5.00	5.13	32.93
1845....	2.29	1.20	5.05	1.96	3.67	2.85	0.51	9.14	1.60	2.90	1.13	1.06	10.68	11.25	5.63	4.55	32.11
1846....	1.93	2.27	1.52	5.48	5.65	7.00	1.71	5.58	4.75	2.30	2.14	5.40	12.65	14.29	9.19	9.60	45.73
1847....	0.98	1.73	5.56	3.22	3.80	5.95	11.18	6.40	0.76	1.26	7.05	1.15	12.58	23.53	9.07	3.86	49.04
1848....	2.88	1.00	3.74	5.64	5.92	4.90	5.23	2.35	0.90	3.80	3.55	4.45	15.30	12.48	8.25	8.33	44.36
1849....	4.35	1.76	4.65	8.45	8.40	6.79	7.90	1.95	1.65	2.00	3.70	5.94	21.50	16.64	7.35	12.05	57.54
1850....	2.87	0.95	1.55	5.28	3.12	3.27	....	....	....	....	....	....	9.95	......	......	......	......
1852....	....	....	....	....	....	4.58	4.96	3.94	3.90	4.89	4.05	1.62	......	13.48	12.84	......	......
1853....	0.93	1.99	1.10	0.99	5.01	2.45	2.75	2.58	3.20	0.73	1.85	0.76	7.10	7.78	5.78	3.68	24.34
1854....	1.37	2.05	7.05	6.55	6.25	2.26	1.02	0.88	3.53	2.85	1.63	2.54	19.85	4.16	8.01	5.96	37.98
Mean ..	1.96	2.17	2.92	5.10	4.46	4.74	3.82	4.47	3.01	3.43	3.49	2.53	12.48	13.03	9.93	6.66	42.10

FORT GIBSON, INDIAN TERRITORY.

1836....	....	....	....	....	....	....	3.10	5.90	8,04	3.05	2.08	1.20	......	......	13.17	......	......
1837....	3.01	1.00	1.90	4.30	4.45	6.10	2.46	0.50	6.72	0,52	3.30	0.40	10.65	9.06	10.54	4.41	34.66
1838....	0.80	0.20	1.01	1.20	4.11	2.04	0.80	1.06	0.52	2.36	2.82	1.92	6.31	3.90	5.70	2.92	18.84
1839....	2.36	1.45	1.35	2.10	1.10	4.65	....	....	....	9.10	1.40	2.50	4.55	......	......	6.31	......
1840....	4.08	1.20	1.40	12.55	10.13	3.30	7.10	0.84	0.81	8.50	3.91	2.00	24.08	11.24	13.22	7.28	55.82
1841....	3.23	0.60	4.90	2.35	2.83	2.09	1.41	2.56	2.43	4.50	8.15	1.20	10.08	6.06	15.08	5.03	36.25
1842....	1.10	1.00	0.30	4.10	5.40	4.75	2.60	3.65	0.60	1.81	1.20	2.60	9.80	11.00	3.61	4.70	29.11
1843....	7.40	0.70	1.31	2.71	2.59	3.32	2.30	8.18	2.11	2.15	1.94	0.90	6.61	13.80	6.20	9.00	35.61
1844....	0.76	6.07	1.91	9.62	8.46	3.15	0.64	1.98	0.76	3.28	0.87	0.08	19.99	5.77	4.91	6.91	37.58
1845....	1.36	0.80	2.95	8.08	2.01	2.18	1.45	1.63	1.44	3.49	0.85	0.03	13.04	5.26	5.78	2.19	26.67

FORT GIBSON, INDIAN TERRITORY—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1846....	1.02	1.54	1.79	3.04	4.60	6.92	0.70	1.40	4.76	0.67	2.53	4.88	9.43	9.02	7.96	7.44	33.85
1847....	0.10	2.12	1.42	3.10	1.85	3.88	1.89	1.78	0.95	3.10	3.35	1.06	5.87	7.55	7.40	3.28	24.10
1848....	1.05	0.20	3.12	5.21	4.52	4.50	6.98	0.00	0.35	5.25	1.90	4.65	12.85	11.48	7.50	5.90	37.73
1849....	2.19	0.88	4.90	2.17	7.52	9.17	8.72	3.70	2.05	4.05	4.40	2.90	14.59	21.59	10.50	5.97	52.65
1850....	1.10	3.17	4.91	4.73	0.37	4.58	1.00	3.00	0.35	3.75	4.75	3.00	10.00	8.58	8.85	7.57	35.00
1851....	0.50	10.42	1.50	0.50	3.20	6.45	1.25	1.15	3.14	9.35	7.10	7.70	5.20	5.85	19.59	18 82	52.46
1852....	1.58	5.67	2.24	2.95	6.72	5.85	6.12	4.99	4.38	5.50	4.91	0.74	11.91	16.96	14.79	7.99	51.65
1853....	0.82	2.27	1.06	3.52	6.65	1.60	0.76	4.72	1.35	1.13	1.30	0.70	11.23	7.08	3.78	3.79	25.88
1854 ..	0.30	1.43	7.83	3.16	7.67	2.80	0.21	0.33	0.68	1.58	2.06	0.77	18.66	3.34	4.32	2.50	28.82
Mean ..	1.83	2.26	2.54	4.19	4.65	4.30	2.75	2.63	2.30	3.85	3.10	2.06	11.38	9.68	9.25	6.15	36.46

FORT SCOTT, MISSOURI, (KANSAS.)

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1843....	4.98	0.20	1.75	4.46	6.10	8.46	5.34	3.30	4.42	0.69	3.38	1.45	12.31	17.10	8.49	6.63	44.53
1844....	2.05	1.30	3.78	6.91	14.79	12.64	10.50	2.51	3.33	2.49	1.52	0.78	25.48	25.65	7.34	4.13	62.60
1845....	0.70	2.33	0.94	5.39	8.16	24.56	4.57	7.18	3.35	3.05	0.97	0.39	14.49	36.31	7.37	3.42	61.59
1846....	1.27	0.92	1.61	2.64	1.76	7.03	1.17	3.09	5.53	2.56	2.97	3.49	6.01	11.29	11.06	5.68	34.04
1847....	1.25	1.24	1.10	4.22	3.12	4.63	5.84	1.79	1.50	2.48	5.56	1.61	8.44	12.26	11.15	4.10	35.95
1848....	0.94	0.25	2.53	1.96	7.33	1.85	4.84	4.20	1.19	1.72	0.27	2.17	11.82	10.89	3.18	3.36	29.25
1849....	3.26	0.18	3.30	5.38	12.20	3.49	5.77	2.62	0.56	3.86	3.78	1.03	20.88	11.88	8.20	4.27	33.23
1850....	1.59	1.52	2.40	3.13	2.19	4.80	0.27	5.45	0.52	1.56	4.39	2.21	7.72	10.52	6.45	5.32	30.01
1851....	0.14	3.60	0.48	0.75	4.39	7.53	2.74	3.89	0.15	2.01	5.49	1.84	5.62	14.16	7.65	4.98	32.41
1852....	2.22	0.11	0.98	2.17	10.74	6.36	4.45	2.90	2.40	6.23	5.98	1.98	13.89	13.71	14.61	4.31	46.52
1853....	2.68	1.30	0.82	....	....	....	. ..	....	....	....	....	....	......	......	......	......	......
Mean...	1.92	1.18	1.79	3.70	7.08	8.13	4.55	3.69	2.30	2.66	3.43	1.69	12 57	16.37	8.39	4.79	42.12

JEFFERSON BARRACKS, MISSOURI.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1840....	....	....	....	....	....	....	4.97	12.25	5.16	5.79	1.28	0.55	......	......	12.23	......	......
1841 ...	2.08	1.03	4.58	4.39	1.95	1.34	1.88	2.51	1.99	6.76	4.08	3.68	10.92	5.63	12.83	6.79	36.27
1842....	0.44	3.46	2 93	2.02	4.81	5.81	1.77	1.90	0.66	2.03	1.58	1.77	9.76	9.48	4.27	5.67	29.18
1843....	2.27	1.75	2.30	4.52	3.01	2.12	2.60	0.97	5.76	1.65	4.16	1.47	9.83	5.69	11.57	5.49	32.58
1844....	2.19	2.33	2.50	3.13	7.27	5.40	5.23	0.71	1.80	1.06	1.46	1.19	12.90	11.33	3.32	5.71	33.27
1845....	1.18	0.84	3.24	1.71	3.25	9.78	3.89	4.53	1.71	0.63	1.35	0.80	7.30	18.20	3.69	2.82	32.01
1846....	3.60	1.02	1.73	4.83	3.50	2.86	0.45	2.09	3.47	0.82	1.42	10.22	7.58	5.40	5.71	14.86	33.55
1847....	....	....	3.12	....	....	4.10	4.47	....	0.85	....	....	0.23	......	......	......	......	......
1848....	1.83	0.92	1.94	1.50	2.58	7.33	4.01	4.25	2.90	1.55	2.28	4.01	6.02	15.59	6.73	6.76	35.10
1849....	3.41	0.37	2.77	1.53	2.00	5.85	7.70	4.72	4.84	1.85	2.02	1.52	6.30	18.27	8.71	5.30	38.58
1850....	1.65	3.22	4.66	5.02	3.46	1.52	2.95	5.20	2.75	1.75	4.11	3.32	13.14	9.67	8.61	8.19	39.61
1851....	0.40	5.05	1.86	2.80	3.97	5.64	4.65	7.06	0.81	2.26	0.38	1.25	8.63	17.35	3.45	6.70	36 13
1852....	3.34	1.73	7.19	1.39	8.12	11.85	2.72	3.24	2.97	4.81	3.80	3.97	16.70	17.81	11.58	9.04	55.13
1853....	0.57	1.51	0.85	3.53	3.52	3.19	6.90	7.08	4.20	1.10	2.40	1.23	7.90	17.17	7.70	3.31	36.08
1854....	1.90	3.25	6.90	3.40	6.98	4.19	0.96	1.47	3.41	6.57	3.13	1.11	17.28	6.62	13.11	6.26	43.27
Mean ..	1.91	2.04	3.32	3.06	4.18	5.07	3.67	4.14	2.88	2.76	2.38	2.42	10.56	12.88	8.02	6.37	37.83

ST. LOUIS ARSENAL, MISSOURI.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1836....	....	....	....	....	....	....	3.66	6.51	5.90	2.59	4.20	5.02	......	......	12.69	......	......
1837....	0.70	1.08	3.43	1.40	3.00	2.77	4.07	3.10	2.88	1.15	1.60	1.70	7.80	9.94	5.63	2.48	25.85
1838....	3.70	2.65	1.19	2.00	1.58	3.68	2.00	3.80	1.00	0.40	1.78	0.30	4.77	9.48	3.18	6.74	24.17
1839....	1.43	2.40	2.30	3.14	7.40	7.21	5.19	1.50	2.40	....	....	....	12.84	13.90	......	......	......
1840....	0.52	1.21	3.58	....	....	....	....	....	....	2.68	2.81	0.35	......	......	......	1.08	......
1841....	1.14	0.11	5.70	3.57	1.20	3.93	3.63	1.95	2.50	7.43	5.45	3.03	10.47	9.51	15.38	4.28	39.64
1843....	1.94	1.30	2.29	4.64	4.95	3.53	4.13	0.76	2.02	1.50	2.50	1.50	11.88	8.42	6.02	4.74	31.06
1844....	4.88	3.76	3.22	5.57	11.03	7.54	8.10	1.47	0.03	2.68	0.50	2.33	19.82	17.11	3.21	10.97	51.11
1845....	1.12	1.74	4.04	3.67	3.05	13.75	0 03	7.45	0.59	1.91	1.73	0.41	10.76	21.23	4.23	3.27	39.49
1846....	2.20	2.19	3.06	7.59	5.97	4.94	1.21	0.68	6.28	4.32	4 19	13.55	16.61	6.83	14.79	17.94	56.17
1847....	1.79	3.09	4.34	8.25	5.95	11.47	5.30	0.74	2.87	10.07	10.05	1.14	18.54	17.51	23.02	6.02	65.09
1848....	0.96	2.96	5.56	2.93	9.94	18.96	5.56	3.31	1.18	4.32	1.91	5.27	18.43	27.83	7.41	9.19	62.86
1849....	7.59	0.55	3.60	4.08	6.39	15.70	13.67	7.95	3.96	2.80	3.35	1.90	14.07	37.32	10.11	10.04	71.54
1850....	2.09	3.00	4.89	5.85	3.41	0.17	3.08	1.17	2.20	2.45	4.65	2.17	14.15	4.42	9.30	7.26	35.13
1851....	0.28	7.31	1.75	3.30	2.26	3.81	1.39	6.40	0.68	1.51	2.80	2.96	7.31	11.60	4.99	10.55	34.45
1852....	1.21	1.48	8.00	2.54	4.44	7.82	1.08	2.12	1.14	4.73	2.75	2.90	14.98	11.02	8.62	5.59	40.21
1853....	0.58	2.13	0.90	3.68	2.85	3.60	4 15	4.95	3.60	1.10	0.85	0.35	7.43	12.70	5.55	3.06	28.74
1854....	0.65	2.40	7.10	4.30	4 65	2.20	1.70	1.48	1.35	3.00	1.45	0.90	16.05	5.38	5.70	3.95	31.08
Mean ..	1.93	3.37	3.82	4.16	4.88	6.94	4.00	3.15	2.38	3.23	3.10	1.99	12.86	14.09	8.71	6.29	41.95

DETROIT BARRACKS, MICHIGAN.

1836....	....	....	....	4.05	4.61	5.10	5.12	1.47	8.78	2.08	1.24	1.55	......	11.69	12.10	......	......
1837....	1.65	0.30	3.30	1.55	1.42	3.10	2.40	3.25	2.30	2.65	4.35	0.95	6.27	8.75	9.30	2.90	27.22
1838....	4.20	1.00	0.55	4 25	2.00	6.56	....	....	....	....	1.95	0.15	4.80	......	.. ..	5.35	29.84
1839....	2.00	1.40	5.15	2 20	0.70	6.10	1.20	1.00	1.90	0.93	1.20	0.50	8.05	8.30	4.03	3.90	24.18
1840....	1.74	1.75	4.62	3.34	2.25	1.88	3.80	1.25	2.69	1.93	2.75	1.63	10.21	6.93	7.37	5 12	29.92
1841....	2.59	0.18	2.69	3.00	3 78	1.09	1.67	1.80	4.37	0.36	2.39	3.24	9 47	4.56	7.12	6.01	27.16
1842....	0.61	1.68	3.58	3.49	0.49	4.01	7.02	1.22	3.96	2.08	2 01	1 69	7.56	12.25	8.05	3.98	31.84
1843....	1.91	1.99	1.85	2.05	3.16	5.36	2.35	1.46	2.20	1.90	1.30	2.07	7.06	9.20	5.40	5.98	27.64
1844....	2.25	0.61	2.60	3.35	5.68	5.18	4.49	3.27	1.03	1.85	1.84	0.95	11.63	12.94	4.72	3.81	33.10
1845....	1.71	0.63	1.89	3.29	1.03	2.30	1.92	1.32	3.82	1.60	1 50	0.50	6.21	5.54	6.92	2.84	21.51
1846....	4.06	2.13	3.15	1.68	5.42	3.55	....	....	....	....	....	....	10.25	......	......	......	......
1849 ...	2.81	1.01	2.57	2.90	2.10	3.96	2.35	4.35	3.25	6.00	1.82	0.90	7.57	10.66	11.07	4.19	33.49
1850....	1.58	1.56	3.84	2.00	0.29	2.65	2.85	3.56	2.11	1.11	2.36	1.49	6.13	9.06	5.58	4.63	25.40
1851....	1.24	3.68	1.37	3.70	5.30	....	....	....	....	....	....	....	10.40	......	......	......	......
Mean ..	2.18	1.38	2.86	2 92	2.73	3.91	3.20	2.18	3.31	2.04	2.06	1.30	8.51	9.29	7.41	4.86	30.07

FORT GRATIOT, MICHIGAN.

1836....	....	....	....	....	....	....	5.19	3.47	4.15	3.76	2.68	3.02	......	......	10.59	......	......
1837....	1.24	2.66	4.18	1.70	2.56	....	....	....	....	....	....	....	8.44	......	......	......	......
1839....	....	....	....	....	....	....	3.93	1.09	3.73	1.44	1.43	1.26	......	......	6.60	......	......
1840....	2.59	2.60	1.01	4.22	2.36	4.45	6.27	4.66	6.46	4.33	2.20	1.59	7.59	15.38	12.99	6.78	42.98
1841....	2.86	0.63	2.87	2.41	1.49	4.65	2.64	2.20	7.91	1.14	1.42	2.73	6.77	9.49	10.47	6.22	32.95
1842....	2.28	2.11	4.18	4.14	2.80	5.07	3.45	1.25	7.26	2.84	2.58	1.66	11.12	9.77	12.68	6.05	39.62

FORT GRATIOT, MICHIGAN—Continued

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1843....	2.72	2.64	2.23	2.15	1.68	4.06	2.08	1.82	3.55	2.73	2.12	1.68	6.06	7.96	8.40	7.04	29.46
1844....	2.73	1.75	2.77	0.99	5.05	3.95	3.63	4 99	1.38	2.68	2.43	1.39	8.81	12.57	6.49	5.87	33.74
1845....	2.95	1.16	2.62	2 31	1.83	2.73	1.67	2.16	4.30	2.44	1.83	0.72	6.76	6.56	8.57	4.83	26.72
1846....	2.97	1.61	2.17	2.19	4.55	2.35	....	....	....	....	....	....	8.91	......	......	......	......
1849....	....	....	....	....	....	....	1.80	4.70	1.12	4.20	0.96	1.66	......	......	6.28	......	......
1850....	1.35	1.02	3.19	2.61	1.02	4.79	3.06	1.80	1.73	1.01	2.19	1.98	6.42	9.65	4.93	4.35	25.75
1851....	1.11	1.77	1.25	2.51	5.36	1.50	3.33	3.56	3 46	2.64	3.25	2.06	9.12	8.39	9.35	4.91	31.77
1852....	1.28	1.36	4.57	2 34	0.94	....	....	....	....	....	....	....	7.85	......	......	......	......
Mean ..	2.19	1.76	2 82	2.51	2.69	3.74	3.37	2 88	4.10	2.66	2.10	1 80	8 02	9.99	8.86	5.75	32.62

FORT MACKINAC, MICHIGAN.

1836....	....	....	....	....	....	....	2.81	1.92	2.48	2.81	2.47	1.84	......	.....	7.76	......	......
1837....	1.75	1.09	1.70	....	....	....	....	....	....	....	....	....	......	......	......	......	......
1844....	....	....	....	....	....	....	....	....	....	....	1.45	1.19	......	......	......	......	......
1845....	2.05	1.05	1.18	0.71	0.92	1.26	2.83	1.08	5.15	1.56	1 73	0.30	2.81	5.17	8.46	3.40	19.84
1846....	1.29	0.26	1.77	2.01	3.27	0.89	0.94	1.28	1.43	1.13	2.14	1.20	7.05	3.11	4.70	2.75	17.61
1847....	1.28	0.81	1.16	1.48	4.03	2.97	2.18	1.82	3.40	0.34	3.10	0.58	6.67	6.97	6.84	2.67	23.15
1848....	1.30	0.82	0.83	1.36	2.16	....	....	....	....	....	...	....	4.35	......	......	......	......
1849....	0.64	0.27	0.40	1.99	2.60	1.20	2.89	5.11	1.60	1.70	1.43	0.51	4.99	9.20	4.73	1.42	20.34
1850....	0.37	0.06	0.32	0.73	0.50	1.68	5.05	4.10	5.52	5.05	3.15	0.40	1.53	10.83	13.72	0.83	26.91
1851....	0.80	0.59	0.41	0.68	1.23	1.91	3.60	0.55	0.50	0.65	0.43	0.35	2.32	6.06	1.58	1.74	11.70
1852....	....	....	....	....	....	....	2.52	0.76	1.40	3.94	0.63	3.46	......	......	5.97	......	......
1853....	0.51	2.05	2.12	0.85	3.55	6.23	3.56	7.81	5.01	1.73	0.93	2.87	6.52	17.60	7.67	5.43	37.22
1854....	2.50	1.23	1.56	1.04	2.65	6.35	5.67	4.26	3.22	2.28	3.66	0.98	5.25	16.28	9.16	4.80	35.49
Mean ..	1.25	0.82	1.14	1.21	2.32	2.81	3.20	2.87	2.97	2.12	1.92	1.24	4.67	8.88	7.01	3.31	23.87

FORT BRADY, MICHIGAN.

1836....	....	....	....	....	....	....	5.51	2.36	6.30	2.98	4.67	3.24	......	......	13.95	......	.....
1837....	1.05	1.15	2.19	1.32	3.68	3.66	4.62	5.15	4.97	4.13	3.11	1.89	7.19	13.43	12.21	4.09	36.92
1838....	2.64	0.32	1.18	2.55	2.48	2.52	2.84	6.87	4.49	3.70	4.40	0.88	6.21	11.73	12.59	3.84	34.37
1839....	1.73	0.54	1.89	0.43	0.47	4.07	1.53	2.33	4.29	4.25	1.78	0.70	2.79	7.93	10.32	2.97	24.01
1840....	1.73	2.19	0.32	2.73	1.15	2.16	2.95	4.63	5.46	3.57	3.67	2.53	4.20	9.74	12.70	6.45	33.09
1841....	1.60	0.93	....	1.04	1.99	2.13	2.41	1.05	4.40	1.10	3.79	2.30	......	5.59	9.29	4.83	22.74
1842....	2.51	1.47	1.43	1.33	1.42	3.77	2.81	1.06	3.50	2.56	3.38	1.16	4.18	7.64	9.44	5.14	26.40
1843....	2.07	1.06	0.68	1.45	2.42	3.14	2.53	0.41	3.00	5.72	3.19	1.58	4.55	6.08	11.91	4.71	27.25
1844....	1.96	0.43	1.66	3.07	2.87	4.26	2.24	4.98	4.81	2.18	3.50	2.49	7.60	11.48	10.49	4.88	34.45
1845....	1.66	1.88	2.20	2.26	2.19	1.43	4.36	3.94	2.64	3.95	1.87	1.28	6.74	9.73	8.47	4.82	29.76
1846....	1.01	0.94	2.51	2.65	2.03	0.95	....	....	4.13	3.90	2.65	2.00	7.19	......	10.68	3.95	......
1847....	1.58	0.80	1.00	2.00	3.00	3.35	3.79	3.83	5.71	1.20	2.62	2.83	6.00	10.97	9.53	4.11	30.61
1848....	1.92	1.83	0.97	1.30	4.14	....	....	....	....	....	....	...	6.41	......	......	......	......
1850....	1.83	0.83	1.83	2.15	0.70	2.92	8.15	4.09	4.90	4.00	1.35	2.91	4.68	15.16	10.25	5.57	35.56
1851....	2.74	1.28	0.84	2.23	3.11	2.91	5.99	3.67	4.82	4.04	6.12	7.55	6.18	12.57	14.98	11.57	45.30

FORT BRADY, MICHIGAN—Continued.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1852....	....	....	....	....	....	....	....	....	....	4.11	1.42	2.99	......	......	......	......	......
1853....	0.92	1.19	0.48	0.73	0.74	3.94	3.27	3.19	2.61	2.16	1.77	0.74	1.95	10.40	6.54	2.85	21.74
1854....	2.49	1.18	1.34	2.14	3.61	1.23	3.21	3.86	3.18	3.40	3.07	0.45	7.09	8.30	9.65	4.12	29.16
Mean...	1.84	1.13	1.37	1.83	2.24	2.83	3.75	3.39	4.33	3.35	3.08	2.21	5.44	9.97	10.76	5.18	31.35

FORT HOWARD, WISCONSIN.

1836....	0.50	1.64	3.20	6.37	5.20	3.50	5.06	2.07	4.78	1.59	2.01	1.72	14.77	10.63	8.38	3.86	37.64
1837....	1.23	0.88	1.81	3.53	6.48	4.31	5.67	4.25	5.64	1.17	2.89	2.69	11.82	14.23	9.70	4.80	40.55
1838....	1.97	0.53	0.14	3.41	1.54	6.77	7.03	5.66	3.36	3.29	2.58	1.28	5.09	19.46	9.23	3.78	37.56
1839....	2.03	1.68	1.85	2.48	3.79	4.05	3.35	2.69	0.77	5.26	2.25	1.68	8.12	10.09	8.28	4.79	31.28
1840....	0.30	0.30	0.26	4.17	1.69	7.29	5.86	3.79	1.25	3.02	2.05	0.50	6.12	16.94	6.32	1.10	33.57
1841....	0.58	0.39	1.69	2.11	2.46	5.48	....	....	....	....	....	....	......	......	......	......	......
1850....	....	....	....	....	....	4.92	6.34	6.94	2.69	1.10	2.59	0.95	......	18.20	6.38	......	......
1851....	1.12	1.50	0.78	1.58	8.50	3.15	5.07	2.67	3.26	1.10	2.26	0.28	10.86	10.89	6.62	2.90	31.47
1852....	1.77	0.66	3.87	2.97	2.15	....	....	....	....	....	....	....	8.99	......	......	......	......
Mean ..	1.19	0.87	1.70	3.33	3.97	4.93	5.51	4.01	3.11	2.36	2.37	1.30	9.00	14.45	7.84	3.36	34.65

FORT WINNEBAGO, WISCONSIN.

1836....	....	....	....	....	....	....	....	0.16	4.53	0.77	1.28	1.77	......	......	6.78	......	......
1837....	0.48	0.91	0.25	2.41	3.18	4.80	5.66	2.89	5.39	0.79	3.23	1.35	5.82	13.35	9.41	2.74	31.32
1838....	2.03	0.20	0.08	2.98	0.86	2.40	7.67	5.35	2.64	1.49	1.77	0.41	3.92	15.42	5.90	2.64	27.88
1839....	0.92	0.47	0.79	1.84	3.59	4.53	0.83	4.38	1.43	8.14	1.27	0.76	6.22	9.74	10.84	2.15	28.95
1840....	0.80	1.17	0.48	1.46	2.03	3.71	5.79	3.47	1.45	4.03	2.68	0.05	3.97	12.97	8.16	2.02	28.12
1841....	0.18	0.43	1.54	1.49	1.51	5.45	3.70	3.79	6.58	1.25	0.55	1.98	4.54	12.94	8.38	2.59	28.45
1842....	0.84	0.56	1.71	1.85	1.17	5.04	3.24	2.14	3.45	0.21	3.12	1.18	4.73	10.42	6.78	2.58	24.51
1843....	0.72	0.62	0.89	2.14	4.18	4.07	1.20	1.22	4.41	0.60	2.67	0.58	6.71	6.49	7.68	1.92	22.80
1844....	1.51	0.58	1.33	3.52	....	4.07	5.40	5.16	2.73	0.73	1.56	1.75	......	14.63	5.02	3.84	......
1845....	0.67	2.49	3.10	2.67	1.46	4.09	4.37	1.53	....	....	....	....	7.33	9.99	......	......	......
Mean ..	0.91	0.82	1.07	2.26	2.25	4.24	4.21	3.01	3.62	2.00	2.01	1.09	5.58	11.46	7.03	2.82	27.49

FORT CRAWFORD, WISCONSIN.

1836...	....	....	....	....	3.60	1.10	3.20	2.30	6.40	1.30	0.50	1.60	......	6.60	8.20	......	......
1837....	0.40	2.70	2.90	3.00	1.40	4.40	1.83	3.65	7.18	1.16	2.51	2.92	7.30	9.88	10.85	6.02	34.05
1838....	1.30	0.00	0.45	3.57	1.03	2.17	1.58	5.68	2.76	1.66	1.44	0.32	5.05	9.43	5.86	1.62	21.96
1839....	1.72	....	1.26	2.07	0.54	5.10	1.57	6.30	4.95	5.05	1.90	1.00	3.87	12.97	11.90	......	31.46
1840....	1.40	1.00	0.20	3.62	2.75	2.57	2.97	6.91	1.90	5.85	1.96	0.12	6.57	12.45	9.71	2.52	31.25
1841....	0.19	0.47	5.76	2.04	1.75	2.36	7.75	3.65	2.45	1.21	0.14	3.28	9.55	13.79	3.80	3.94	31.05
1842....	1.29	1.13	2.00	4.08	6.20	7.08	1.00	6.43	3.58	0.08	3.47	2.00	12.28	14.51	7.13	4.42	38.34
1843....	0.70	0.93	0.58	1.60	2.82	3.10	2.20	4.13	4.90	1.33	2.82	0.47	5.00	9.43	9.05	2.10	25.58
1844....	2.60	0.87	1.42	3.56	4.71	4.01	8.81	6.06	2.46	0.76	1.42	2.38	9.69	18.88	4.64	5.85	39.06
1845....	1.10	2.79	2.73	3.36	2.40	5.50	3.90	1.35	....	....	....	....	8.49	10.75	......	......	......
Mean...	1.19	1.24	1.92	2.99	2.72	3.74	3.48	4.05	4.06	2.04	1.80	1.57	7.63	11.87	7.90	4.00	31.40

FORT ATKINSON, IOWA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
1844....	....	....	....	....	5.55	5.88	10.14	5.09	2.35	1.81	0.86	1.11	......	21.11	5.02	......	.....
1845....	0.43	1.63	1.96	2.83	3.23	7.48	7.21	5.07	3.27	1.22	0.15	0.35	8.02	19.76	4.64	2.41	34.83
1846....	1.00	0.03	3.12	6.53	6.33	....	....	....	....	....	....	....	15.98	......	......	......	......
Mean...	0.71	0.83	2.54	4.68	5.00	6.68	8.67	5.08	2.81	1.51	0.50	0.73	12.22	20.43	4.82	2.27	39.74

FORT DES MOINES, IOWA.

1844....	....	....	....	....	....	7.66	3.52	....	4.13	1.00	0.32	2.25	......	......	4.45	......	......
1845....	1.00	1.32	1.42	3.83	1.61	5.50	0.51	2.34	3.04	...	....	....	6.86	8.35	......	......	......
1846....	0.90	0.02	....	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean...	0.95	0.67	1.42	3.83	1.61	6 58	2.01	2.34	3.58	1.00	0.32	2.25	6.86	10.93	4.90	3.87	26.56

FORT SNELLING, MINNESOTA.

1836....	....	....	....	....	....	....	7.28	5.55	4.45	0.55	0 70	0.63	......	......	5.70	......	......
1837....	0.27	0.35	0.33	0.95	2.65	3.46	2.73	1.32	5.10	3.15	1.37	2.34	3.93	7 51	9.62	2.96	24.02
1838....	0.65	0.76	0 15	2.41	3.05	4.76	11.11	3.08	0.71	0.16	0.43	0.45	5 21	18.95	1.30	1.86	28.22
1839....	1.34	0.36	0.71	2.71	3.28	1 80	3.50	1.04	1.61	2.11	1.66	1.07	6.70	6.34	5.38	2.77	21.19
1840....	0.49	0.49	0.65	1.55	2.31	3.50	2.89	3.40	2.33	2.21	3.22	0.13	4 51	9.79	7.76	1.11	23.00
1841....	0 24	0.21	1.43	1.40	1.50	4.24	1.57	1.17	6.10	1.55	0.84	1.42	4 33	6.98	8.49	1.87	21.07
1842....	0.95	0.72	0.44	2.17	1.68	3.73	1 78	4.81	4.83	....	3.46	0.60	4.29	10.32	......	2.27	.. ...
1843....	1.15	1.46	0.82	0.75	3.12	5 22	2.09	1.84	5.14	0.50	1.43	0.27	4.69	9.25	7.07	2.88	23.09
1844....	1.50	0.72	0.97	5.16	4.50	1.64	4.80	4.37	4.26	0 97	0.77	0.58	10.63	10.81	5.90	2.80	30.14
1845....	0.49	1 40	2.80	3.15	1.51	6.80	2.56	3.28	2.21	0.66	0.40	0.08	7.46	12.64	3.27	1.97	25.34
1846....	0.52	0.03	1.71	2.90	2.00	3.10	4.95	3.80	2.33	2.45	2.10	0 21	6.61	11.85	6.88	0.76	26.10
1847....	0.29	0.11	0 44	0.45	4.96	2.66	3.66	2.49	4.00	0 37	1.71	0.66	5.85	8.81	6.08	1 06	21.80
1848....	0.62	1.13	1.71	0.18	5.28	2.83	4.60	3.19	2.46	0.68	0.10	0.40	7.17	10.62	3.24	2.15	23.18
1849....	1.00	0.61	4.11	5.62	6.57	3.14	7.59	9.60	2.75	5.35	1.40	1.95	16 30	20.33	9.50	3.56	49.69
1850...	1.67	0 83	2.23	2.60	0.57	4 62	6 15	2.97	1.82	0.32	1.68	0.04	5.40	13.74	3.82	2.54	25.50
1851...	0.20	0.13	1.23	2.68	3.96	2.15	2.60	3.29	3.64	1.18	2.31	0.05	7.87	8.04	7.13	0.38	23 42
1852....	0.06	0.14	2.04	2.49	4.72	0.08	2.74	0.89	0.72	0.82	0.22	0.15	9.25	3.71	1.76	0.35	15.07
1853....	0.00	0.01	0.02	0.73	4.08	7.59	1.65	2.57	2.14	0.01	0.56	1.11	4.83	11.81	2.71	1.12	20.47
1854....	0.72	0.03	1.03	2 51	4.30	3.31	3.92	1.75	6.55	1.23	0.60	0.64	7.84	8.98	8.38	1.39	26.59
1855....	1.67	0.41	1.84	0.28	1.23	2.38	....	....	....	....	....	....	3.35	......	......	......	......
Mean ..	0.73	0.52	1.30	2.14	3.17	3.63	4.11	3.18	3.32	1.35	1.31	0.67	6.61	10.92	5.98	1.92	25.43

FORT RIPLEY, (GAINES,) MINNESOTA.

1850....	1.36	0.91	1.05	2.67	1.52	6.00	11.92	2.51	1.77	1.45	3.65	0.51	5.24	20 43	6.87	2.78	35.32
1851....	1.41	0.24	0.26	0.97	5.56	5.50	....	3.15	8.74	1.93	2.82	0.36	6.79	......	13.49	2.01	......
1852....	0.13	0.42	6.61	2.37	3.96	2.10	3.92	1.37	6.40	1.27	3.10	2.87	12.94	7.39	10.77	3.42	34.52
1853....	0.18	0.34	1.06	1.31	1.45	8.72	4.35	2.64	3.31	0.95	1.18	0.63	3.82	15.71	5.44	1.15	26.12
1854....	0.67	0.03	0.79	0.97	4.34	3.68	0.62	1.69	4.40	0.91	0.24	0.15	6.10	5.99	5.55	0.85	18.49
1855....	1.41	0.28	1 12	0.36	1.68	4.88	....	....	....	....	....	....	3.16	......	......	......	......
Mean...	0.86	0.37	1.80	1.42	3.09	5.15	5.20	2.27	4.92	1.30	2.20	0.90	6.31	12.62	8.42	2.13	29.48

FORT LEAVENWORTH, KANSAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1836....	....	....	....	....	1.30	4.23	3.41	5.90	6.45	0.87	1.64	0.78	13.54	8.96	......	......	......
1837....	0.11	2.73	2.76	1.03	3.32	6.20	4.20	1.00	7.80	3.40	2.70	2.60	7.71	11.40	13.90	5.44	38.45
1838....	1.80	1.00	1.90	1.30	2.60	6.13	2.18	6.66	0.30	0.40	1.81	0.20	5.80	14.97	2.51	3.00	26.28
1839....	1.08	0.78	1.98	3.99	3.51	5.29	5.12	1.95	0.76	6.05	1.29	1.52	9.48	12.36	8.10	3.38	33.32
1840....	0.73	0.74	1.27	2.62	3.34	6.62	2.65	4.98	3.48	3.89	1.60	0.22	7.23	14.25	8.97	1.69	32.14
1841....	0.04	0.23	1.91	4.38	0.56	2.95	2.50	2.33	5.52	3.26	....	0.05	6.85	7.78	......	0.32	......
1842....	0.01	0.60	0.99	2.84	1.39	5.65	3.15	6.06	1.02	0.26	3.22	1.10	5 22	14.86	4.50	1.71	26.29
1843....	0.12	0.10	1.35	5.53	2.29	0.52	0.57	0.13	3.19	1.04	0.05	1.05	9.17	1.22	4.28	1.27	15.94
1844....	0.50	1.60	3.40	3.20	8.53	12.00	8.08	4.80	1.60	0.40	3.62	0.39	15.13	24.88	5.62	2.49	48.12
1845....	0.60	2.20	0.73	2.40	2.30	15.80	0.01	1.70	6.70	1.30	0.82	0.00	5.43	17.51	8.82	2.80	34.56
1846....	0.40	0.20	1.10	3.90	3.20	4.16	2.61	0.08	3.88	1.03	1.14	2.05	8.20	6.85	6.05	2.65	23.75
1847....	0.69	1.30	0.48	2.79	7.18	5.15	1.20	0.50	0.32	0.00	0.27	1.15	10.45	6.85	0.59	3.14	21.03
1848....	1.45	1.40	1.50	0.91	3.50	6.76	3.25	3 05	7.60	0.74	4.33	3.50	5.91	13.06	12.67	6.35	38.00
1849....	2.90	0.60	3.40	2.40	5.10	2.26	6.03	5.80	7.56	3.44	2.80	0.56	10.90	14.09	13.80	4.06	42.85
1850....	1.10	2.21	3.64	1.74	2.32	5.99	1.63	2.27	0.72	0.85	3.84	0.76	7.70	9.89	5.41	4.07	27.07
1851....	0.54	0.96	1.03	1.00	6.40	8.16	6.78	5.02	1.10	1.68	3.18	1.96	7.43	19.96	7.96	3.46	38.81
1852....	0.96	0.28	1.35	5.50	4.71	6.53	4.60	4.22	1.61	2.64	3.53	0.60	11.56	15.35	7.78	1.84	36.58
1853....	0.01	0.30	0.15	2.36	3.39	5.95	3.21	5.01	1.47	0.52	2.07	0.76	5.90	14.17	4.06	1.07	25.20
1854....	0.04	1.78	1.33	3.35	5.55	4.50	0.18	1.07	2 11	3.20	1.20	0.09	10.23	5.75	6.51	1.91	24.40
1855....	0.59	0.20	0.42	0.27	1.98	1 09	1.70	....	....	....	....	....	2.67	......	......	......	......
Mean ..	0.72	1.01	1.61	2.74	3.62	5 80	3.15	3.29	3.32	1 84	2.17	1.02	7.97	12 24	7.33	2.75	30.29

FORT DODGE, IOWA.

1851....	....	....	....	....	....	....	....	1.95	2.59	2.43	2.84	0.71	.....	......	7.86	......	......
1852....	1.09	0.58	1.55	2.16	2.05	5.16	1.57	0.89	2.51	4.10	1.92	2.27	5.76	7.62	8.53	3.94	25.85
1853....	0.20	0.26	1.31	3.92	4.84	....	....	....	....	....	....	....	10.07	......	......	......	......
Mean ..	0.65	0.42	1.43	3.04	3.45	5.16	1.57	1.42	2.55	3.26	2.38	1.99	7.92	8.15	8.19	3.06	27.32

FORT KEARNY, NEBRASKA.

1849....	....	....	6.12	7.86	10.74	4.00	7.70	6.05	0.27	1.80	0.10	0.10	24.72	17.75	2.17	......	......
1850....	0.47	0.06	1.06	1.07	2.88	9.93	5.38	1.66	0.43	0.26	1.57	0.30	5.01	16.97	2.26	0.83	25.07
1851....	1.15	0.97	0.14	0.73	9.43	3.50	2.86	2.78	2.60	0.52	1.00	0.76	10.30	9.14	4.12	2.88	26.44
1852....	0.12	0.25	0.28	0.73	5.23	3.02	2.69	1.84	2.17	1.35	2.24	0.73	6.24	7.55	5.76	1.10	20.65
1853....	0.00	0.02	0.08	6.10	8.46	2.47	8.28	2.21	0.94	0.26	1.00	0.08	14.64	12.96	2.20	0.10	29.90
1854....	0.23	1.33	1.87	2.56	4.15	5.40	3.51	1.18	4.60	1.07	0.75	0.00	8.58	10.09	6.42	1.56	26.65
1855....	1.00	0.25	1.35	0.68	4.91	2.20	....	....	....	....	....	....	6.94	......	......	......	......
Mean ..	0.50	0.48	1.55	2.68	6.57	4.36	5.07	2.62	1.83	0.88	1.11	0.33	10.80	12.05	3.82	1.31	27.98

FORT LARAMIE, NEBRASKA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	....	....	....	....	....	....	....	....	0.21	2.72	0.24	0.38	......	......	3.17	......	......
1850....	0.30	0.42	1.31	1.03	1.41	1.40	1.80	0.51	0.22	0.23	0.23	....	3.75	3.71	0.72?	......	......
1851....	....	....	....	0.16	4.21	0.33	0.32	0.78	0.42	0.36	0.52	0.88	......	1.43	1.30	......	......
1852....	0.72	1.10	1.55	1.25	7.29	4.08	1.88	1.46	2.74	1.70	6.42	1.23	10.09	7.42	10.86	3.05	31.42
1853....	0.08	0.57	1.78	4.53	12.19	4.95	1.86	0.55	2.80	0.63	0.08	0.71	18.50	7.36	3.56	1.36	30.78
1854....	0.18	0.40	0.80	3.98	4.46	3.67	3.26	1.27	1.60	1.86	0.73	0.05	9.24	8.20	4.19	0.63	22.26
1855....	0.04	1.06	1.41	0.65	2.79	3.25	1.45	....	....	....	....	....	4.85	......	......	......	......
Mean ..	0.27	0.71	1.37	1.93	5.39	2.95	1.83	0.92	1.33	1.26	1.37	0.65	8.69	5.70	3.96	1.63	19.98
1852....	....	....	....	....	....	....	....	5.10	3.85	6.81	1.39	1.60	......	......	12.05	......	......
1853....	0.04	0.49	0.96	3.38	9.34	4.35	....	0.50	....	....	....	....	13.68	7.15	......	2.13	35.01

The last observations, for 1852 and 1853, were at *Fort Atkinson*, on the Plains, crossing of Arkansas river.

FORT ARBUCKLE, INDIAN TERRITORY.

1850....	....	....	....	....	....	....	....	...	....	1.70	5.40	1.25	......	......	......	......	......
1851....	0.01	5.40	0.20	2.71	2.61	2.19	1.55	1.16	1.60	1.07	3.39	2.35	5.52	4.90	4.06	7.76	22.24?
1852....	1.86	4.21	1.21	1.41	7.30	5.30	5.09	4.82	5.04	7.16	2.50	0.12	9.92	15.21	14.66	6.29	46.08
1853....	0.49	1.88	0.32	1.04	5.31	4.57	3.27	1.30	3.16	3.32	1.05	0.97	6.67	9.14	7.53	3.34	26.68
1854....	0.01	2.30	3.33	2.98	6.60	4.33	0.00	2.14	2.12	0.55	3.46	0.40	12.91	6.47	6.13	2.71	28.22
1855....	0.20	1.28	0.35	2.28	3.13	3.38	3.50	....	....	....	....	....	5.76	......	......	......	......
Mean ..	0.51	3.01	1.08	2.08	4.99	3.95	2.68	2.35	2.98	2.76	3.16	1.02	8.15	8.98	8.90	4.54	30.57

FORT BELKNAP, TEXAS.

1852....	....	....	....	....	....	....	....	....	....	5.90	3.15	0.05	......	... ..	......	......	......
1853....	0.06	1.33	0.96	2.03	6.19	2.74	2.27	0.12	1.77	4.89	1.03	1.75	9.18	5.13	7.69	3.14	25.14
1854....	0.11	1.10	1.42	1.75	4.97	8.33	0.00	0.75	1.53	0.59	0.05	0.05	8.14	9.08	2.17	1.26	20.65
1855....	0.01	0.78	0.10	0.30	3.55	3.15	....	....	....	....	....	....	3.95	......	......	......	......
Mean...	0.06	1.07	0.83	1.36	4.90	4.74	1.14	0.43	1.05	3.79	1.41	0.62	7.09	6.31	6.85	1.75	22.00

FORT WORTH, TEXAS.

1849....	....	....	....	....	....	....	....	....	....	....	....	1.90	......	......	......	......	......
1850....	0.60	0.30	1.20	4.70	6.90	7.30	0.50	3.70	0.51	2.24	4.90	5.10	12.80	11.50	7.65	6.00	37.95
1851....	2.70	10.80	4.66	6.61	9.27	0.22	0.16	0.06	0.06	2.24	4.92	0.79	20.54	0.44	7.22	14.29	42.49
1852....	1.35	3.75	5.20	1.73	4.27	3.81	3.14	6.41	5.60	5.40	2.60	0.10	11.10	13.36	13.60	5.20	43.26
1853....	1.60	3.30	3.38	4.18	5.94	3.60	5.72	0.60	....	....	....	....	13.50	9.92	......	......	......
Mean...	1.56	4.54	3.61	4.30	6.59	3.73	2.38	2.69	2.06	3.29	4.14	1.97	14.50	8.80	9.49	8.07	40.86

PHANTOM HILL, (CLEAR FORK OF BRAZOS,) TEXAS.

1852....	....	....	...	....	....	....	....	....	4.82	4.81	2.45	0.00	......	......	12.08	......	......
1853....	0.52	1.30	0.54	0.45	2.85	2.90	1.15	0.03	0.28	2.01	0.23	1.87	3.84	4.08	2.52	3.69	14.13
1854....	0.00	0.30	....	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	0.26	0.80	0.54	0.45	2.85	2.90	1.15	0.03	2.55	3.41	1.34	0.94	3.84	4.08	7.30	2.00	17.22

FORT CHADBOURNE, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1852....	....	....	....	....	6.25	5.00	5.98	2.32	4.01	3.64	0.80	0.00	......	13.30	8.45	......	......
1853....	0.70	1.25	1.61	0.80	6.48	5.48	2.80	0.85	1.76	2.87	0.19	2.67	8.89	9.13	4.82	4.62	27.46
1854....	0.00	0.90	0.48	0.56	5.76	4.67	1.31	4.30	4.09	3.30	6.30	2.60	6.80	10.28	13.69	3.50	34.27
1855....	1.10	2.50	0.15	3.35	6.33	3.31	....	....	....	....	....	....	9.83	......	......	......	......
Mean ..	0.60	1.55	0.75	1.57	6.20	4.61	3.36	2.49	3.29	3.27	2.43	1.76	8.52	10.46	8.99	3.91	31.88

FORT GRAHAM, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1850 ...	....	....	1.35	4.25	2.57	4.83	1.50	3.95	0.60	3.77	1.09	11.03	8.17	10.28	5.46	......	......
1851....	1.80	6.86	3.63	7.88	3.05	0.32	0.11	0.21	0.26	5.25	7.40	4.40	14.56	0.64	12.91	13.26	41.37
1852....	0.64	5.25	8.75	4.00	2.65	3.68	4.90	3.76	1.53	3.69	5.70	0.31	15.30	12.34	10.92	6.20	44.76
1853....	1.83	3.61	4.48	2.00	3.35	2.00	2.08	0.32	....	....	....	....	9.83	4.40	......	......	......
Mean ..	1.42	5.24	4.55	4.53	2.90	2.71	2.15	2.06	0.80	4.24	4.73	5.25	11.98	6.02	9.77	11.91	40.58

FORT CROGHAN, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849..	....	....	....	....	....	3.70	3.00	0.40	1.20	1.30	1.40	0.90	......	7.10	3.90	......	......
1850....	1.00	0.90	3.10	3.40	5.00	5.60	1.60	0.69	0.45	0.28	1.02	2.56	11.50	7.89	1.75	4.46	25.60
1851....	1.09	5.01	3.54	7.05	1.06	1.06	2.99	1.00	1.35	3.52	9.80	7.40	11.65	5.05	14.67	13.50	44.87
1852....	1.70	6.00	9.18	2.79	2.21	3.78	3.75	3.09	5.96	3.35	3.33	0.57	14.18	10.62	12.64	7.27	44.71
1853....	1.97	6.52	3.07	2.28	3.78	2.52	5.59	0.20	....	....	....	....	9.13	8.31	......	......	......
Mean ..	1.44	4.61	4.72	3.88	3.01	3.33	3.39	1.08	2.24	2.11	3.89	2.86	11.61	7.80	8.24	8.91	36.56

FORTS MARTIN SCOTT, MASON, TERRETT, AND McKAVETT, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1850....	1.07	0.69	1.57	4.60	3.45	10.28	1.71	0.37	1.18	0.99	3.87	2.74	9.62	12.36	6.04	5.50	33.52
1851....	0.73	5.14	3.48	8.37	1.18	0.08	0.80	1.20	1.44	1.15	1.50	1.00	13.03	2.08	4.09	6.87	26.07
1852....	0.60	3.10	12.40	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	0.80	2.98	5.82	6.48	2.31	5.18	1.25	0.78	1.31	1.07	2.68	1.87	14.61	7.21	5.06	5.65	32.53
M. 1852.	....	....	....	1.90	8.94	3.46	6.64	1.54	4.70	2.54	1.50	0.01	......	11.64	7.74	......	......
1853.	1.04	2.01	1.52	2.89	1.21	7.58	6.48	1.69	1.14	3.07	0.12	....	5.62	15.75	4.33	......	......
T. 1852.	....	....	....	1.08	5.15	4.27	3.04	1.61	5.72	3.92	1.23	0.00	......	8.92	10.87	.....	......
1853.	0.80	1.54	1.15	0.86	2.80	6.00	3.68	1.83	0.10	4.50	0.04	1.53	4.81	11.51	4.64	3.87	24.83
McK. '52	....	....	....	0.59	4.75	4.84	1.84	0.85	3.42	5.26	1.59	0.01	.....	7.53	10.27	......	......
1853.	1.75	2.94	1.52	2.00	2.25	5.49	4.03	1.65	....	....	....	....	5.77	11.17	......	......	......
1854.	0.01	0.77	2.10	0.28	3.72	0.15	2.91	0.04	3.86	0.79	1.19	0.95	6.10	3.10	5.84	1.73	16.77
1855.	0.09	1.00	0.08	2.29	2.63	1.19	....	....	....	.....	....	....	5.00	......	......	......	......
Mean...	0.62	1.57	1.23	1.29	3.34	2.92	2.92	0.85	3.64	3.02	1.39	0.48	5.86	6.69	8.05	2.67	23.27

SAN ANTONIO, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	....	....	...	....	....	....	....	....	6.12	0.30	5.53	1.22	......	......	11.95	......	......
1850....	0.64	2.07	1.37	3.34	3.22	9.63	3.10	0.17	0.39	0.81	2.34	2.90	7.39	12.90	3.54	5.61	29.98
1851....	0.75	6.86	1.45	4.37	2.80	3.74	3.07	0.60	1.20	0.40	3.30	2.30	8.62	7.41	4.90	9.91	30.84
1852....	1.00	4.30	6.00	0.70	2.66	5.09	3.53	1.75	3.49	2.70	....	....	9.36	10.37	......	......	......
Mean ..	0.80	4.41	2.94	2.80	2.89	6.15	3.23	0.84	2.80	1.05	3.72	2.14	8.63	10.22	7.57	7.35	33.77

CORPUS CHRISTI, AND FORTS EWELL AND MERRILL.

1846....	3.96	2.37	1.25	3.71	3.44	6.65	3.02	5.48	10.49	....	....	....	8.30	15.16	......	......	......
1849....	....	....	....	....	....	....	....	2.25	4.65	2.04	0.22	1.34	......	......	6.91	......	......
1851....	....	....	....	4.32	2.53	5.52	3.97	0.23	4.96	2.71	1.89	1.19	......	9.72	9.56	......	......
1854....	....	...	....	...	8.07	4.71	7.69	3.68	6.82	....	....	....	......	16.08	......	......	......
Mean ..	3.96	2 37	1.25	4.01	4.68	5.63	4.89	2.91	6.73	2.37	1.05	1.26	9.94	13.43	10.15	7.59	41.11
1852....	....	....	....	....	....	....	....	....	....	1.41	0.15	0.45	......	......	......	.....	......
1853...	1.30	6.60	1.05	2.25	3.35	9.65	2.22	1.65	5.25	3.32	0.83	1.87	6.65	13.52	9.40	9.77	39.34
1854....	0.22	2.86	0.38	0.00	6.88	6.05	3.58	3.21	4.68	....	....	....	7.26	12.84	......	......	......
Mean ..	0.76	4.73	0.71	1.12	5.11	7.85	2.90	2.43	4.96	2.36	0.49	1.16	6.94	13.18	7.81	6.65	34.58
1851....	....	....	....	3.47	1.41	1.83	4.19	1.31	2.93	0.37	0.85	0.56	......	7.33	4 15	......	......
1852....	....	....	....	....	....	1.13	8.76	....	....	....	....	...	......	......	......	......	......
1853....	....	..	....	....	....	....	....	5.75	5.86	3.12	1.40	1.18	......	......	10.38	......	......
1854....	0.11	1.99	0.05	1.16	7.66	4.70	5.44	3.13	5.01	0.64	3.20	2.13	8.87	13.29	8.85	4.23	35.24
1855....	0.35	2.19	0.13	0.23	1.21	8.75	....	....	....	....	....	...	1.57	......	......	......	......
Mean ..	0.23	2.09	0.09	1.62	3.43	4.10	6.13	3.40	4.60	1.38	1.82	1.93	5.14	13.63	7.80	4.25	30.82

FORT BROWN, TEXAS, (MATAMOROS.)

1850....	4.30	3.80	2.30	0.05	2.20	0.06	1.16	0.01	0.25	5.79	0.69	0.15	4.55	1.23	6.73	8.28	20.76
1851....	0.95	1.20	0.40	1.15	0.90	2.35	3.65	1.80	5.60	4.10	3.00	4.70	2.45	7.80	12.10	6.85	29.30
1852....	0.50	0.60	0.35	0.00	4.05	5.05	0.70	3.90	8.50	4.95	0.90	0.00	4.40	9.65	14.35	1.10	29.50
1853....	0.00	1.60	0.00	2.20	0.10	1.70	0.00	3.10	8.00	7.75	1.30	0.65	2.30	4.80	17.05	2.25	26.40
1854....	0.45	1.50	1.15	0.05	4.10	7.65	4.25	5 00	11.31	5.79	7.47	1.88	5.30	16.90	24.57	3.83	50.60
1855....	3.47	4.83	3.03	0.00	1.92	10.47	....	....	....	....	....	....	4.95	......	......	......	......
Mean ..	1.61	2.25	1.20	0.56	2.21	4.55	1.95	2.76	6.73	5.68	2.67	1.48	3.97	9.26	15.08	5.34	33.65

RINGGOLD BARRACKS, TEXAS.

1849....	....	....	....	....	....	....	....	....	4.48	3.02	0.30	0.94	......	......	7.82	......	......
1850....	3.14	0.61	1.93	0.79	4.55	2.76	0.17	0.11	0.08	0.58	2.91	0.01	7.27	3.04	3.57	3.76	17.64
1851....	0.84	0.69	0.03	1.21	0.20	1.21	2.20	0.02	5.21	1.20	0.12	1.15	1.44	3.43	6.53	2.68	14.08
1852....	1.00	0.88	0.65	0.68	2.28	0.96	0.82	1.44	4.24	4.78	0.01	0.08	3.61	3.22	9.03	1.96	17.82
1853....	0.70	2.33	0.09	3.79	3.91	1.45	0.15	4.34	2.32	2.40	0.19	0.91	7.79	5.94	4.91	3.94	22.58
1854....	0.70	1.69	0.22	0.00	2.83	10.98	4.06	1.58	3.02	0.92	2.10	0.68	3.05	16.89	6.04	3.07	29.65
1855....	1.06	0.68	1.43	0.00	2.40	....	5.38	....	....	....	....	....	3.83	......	......	......	......
Mean ..	1.24	1.18	0.72	1.08	2.69	3.47	2.13	1.50	3.22	2.15	0.94	0.63	4.49	7.10	6.31	3.05	20.95

FORT McINTOSH, TEXAS.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
1849....	....	....	....	....	....	....	2.95	4.70	3.74	0.46	0.83	0.35	......	......	5.03	......	......
1850....	0.39	0.72	0.46	0.51	3.70	4.93	1.19	0.07	0.00	2.21	2.68	0.49	4.67	6.19	4.89	1.60	17.35
1851....	0.11	1.69	0.95	1.35	0.37	3.36	0.78	0.00	2.73	1.37	0.87	0.65	2.67	4.14	4.97	2.45	14.23
1852....	0.46	1.05	1.41	0.00	1.18	1.19	1.52	0.23	2.06	1.13	0.24	0.06	3.59	2.94	3.43	1.57	11.53
1853....	0.30	1.99	0.06	4.32	1.57	2.43	4.51	2.22	4.24	0.21	0.01	0.92	5.95	9.16	4.46	3.21	22.73
1854....	0.05	1.90	0.30	0.00	5.02	4.54	3.95	0.20	5.34	0.35	1.83	0.42	5.32	8.69	7.57	2.37	23.95
1855....	0.25	1.40	0.33	0.01	2.88	5.18	....	....	....	....	....	....	3.22	......	......	......	......
Mean ..	0.26	1.46	0.59	1.03	2 45	3.61	2.48	1.24	3.02	0.96	1.08	0.48	4.07	7.33	5.06	2.20	18.66

FORT DUNCAN, TEXAS.

1849....	....	....	....	....	....	....	....	....	....	0.03	1.20	0.40	......	......	......	......	......
1850....	0.40	0.12	0.02	0.98	1.00	5.51	2.85	0.60	0.10	1.30	3.70	1.40	2.00	8.96	5.10	1.92	17.98
1851....	0.70	2.32	0.23	0.88	1.15	2.30	1.10	0.70	1.36	1.50	1.20	0.68	2.26	4.10	4.06	3.70	14 12
1852....	0.28	2.30	6.27	0.00	2.13	2.81	6.70	0.32	6.10	1.22	0.24	0.00	8.40	9.83	7.56	2.53	28.37
1853....	0.13	1.30	0.01	2.10	0.75	10.70	5.28	2.15	4.05	4.10	0.05	2.69	2.86	18.13	8.20	4.12	33.31
1854....	0.05	0.69	1.50	0.00	2.53	6.83	0.83	0.90	4.81	0.40	3.28	0.18	4.03	8.56	8.49	0.92	22.00
1855....	0.00	0.91	0.01	0.28	1.44	....	....	....	....	....	....	....	1.73	......	......	......	......
Mean ..	0.26	1.27	1.34	0.71	1.50	5.63	3.35	0.93	3.28	1.43	1.61	0.89	3.55	9.91	6.32	2.42	22.20

FORT INGE, TEXAS.

1849....	....	...	....	....	....	....	....	....	....	....	2.05	2.30	......	......	......	......	......
1850 ...	0.38	0.71	1.42	1.11	1.07	7.00	2.70	3.19	1.50	1.70	3.60	2.10	2.60	12.89	6.80	3.19	25.48
1851....	....	3.54	1.45	2.95	1.08	0.73	2.84	3.53	0.73	1.50	1.43	0.29	5.48	7.10	3.66	......	......
1852....	0.34	1.40	2.62	0.15	5.76	8.07	6.82	0.12	2.83	3.19	1.52	0.00	8.53	15.01	7.54	1.74	32.82
1853....	2.16	3.58	1.51	2.42	3.28	9.00	4.97	1.59	1.20	6.76	0.15	1.02	7.21	15.56	8.11	6.76	37.64
1854....	0.20	2.15	3.00	0.75	3.88	2.09	0.97	1.67	4.80	0.33	3.71	0.50	7.63	4.73	8.84	2.85	24.08
1855....	0.10	1.86	0.75	0.17	....	....	....	....	...	....	....	....	.....	......	.....	......	......
Mean ..	0.64	2.21	1.79	1.26	3.01	5.38	3.66	2.02	2.21	2.70	2.08	1.03	6.06	11.06	6.99	3.88	27.99

FORT LINCOLN, TEXAS.

1850....	....	....	....	0.50	2.50	....	....	....	2.80	....	....	....	......	......	......	......	......
1851....	0.00	5.05	2.11	4.86	1.90	0.76	0.89	0.39	0.27	1.36	2.01	0.98	8.87	2.04	3.64	6.03	20 58
1852....	0.26	2.96	4.90	0.23	4.26	3.38	1.10	....	....	....	....	....	9.39	......	......	.....	......

FORT CLARK, TEXAS.

1852....	....	....	....	....	....	....	....	0.87	3.50	2.09	1.91	0.00	......	......	7.50	......	.....
1853....	0.88	1.18	0.65	2.50	1.16	10.21	3.87	2.75	0.13	4.00	0.21	1.60	4.31	16.83	4.34	3.66	29.14
1854....	0.00	0.94	1.48	0.60	2.65	0.11	0.08	0.95	3.49	0.55	3.22	0.35	4.73	1.14	7.26	1.29	14.42
1855....	0.01	1.96	0.45	0.31	4.29	4.77	.. .	....	....	....	....	....	5.05	......	......	......	......
Mean ..	0.30	1.36	0.86	1.14	2.70	5.03	1.98	1.52	2.37	2.21	1.78	0.65	4.60	8.53	6.36	2.31	21.80

EL PASO AND FORT BLISS, NEW MEXICO.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1850....	....	....	....	....	....	....	....	0.70	0.05	0.60	4.60	1.10	......	......	5.25	......	......
1851....	0.00	0.90	0.00	0.00	0.70	0.02	1.05	2.49	....	....	....	....	0.70	4.56	......	......	......
1854....	....	....	....	....	....	....	0.10	5.71	3.70	1.54	0.00	0.50	......	......	5.24	......	......
Mean ..	0.00	0.90	0.00	0.00	0.70	0.02	0.57	2.97	1.88	1.07	2.30	0.80	0.70	3.56	5.25	1.70	11.21

The observations nominally at *El Paso* to August, 1851, were taken at points on the north side of the Rio Grande, opposite the Mexican town of El Paso.

FORTS FILLMORE, WEBSTER, AND THORN, NEW MEXICO.

1851....	....	....	....	....	....	....	....	....	1.40	0.11	2.13	1.74	......	......	3.64	......	......
1852....	....	0.29	0.04	0.20	0.40	1.74	3.84	1.00	1.47	0.77	2.66	0.00	0.64	6.58	4.90	......	......
1853....	0.04	0.10	0.03	0.01	0.05	0.28	2.80	1.83	1.21	0.90	1.15	0.64	0.09	4.91	3.26	0.78	9.04
1854....	0.00	0.00	0.65	0.10	0.86	0.05	0.87	1.38	0.95	0.39	0.07	0.15	1.61	2.30	2.01	0.15	6.07
1855....	0.00	0.00	0.12	0.45	0.05	0.07	....	....	....	....	....	....	0.62	......	......	......	......
F. Mean.	0.01	0.10	0.21	0.20	0.34	0.54	2.50	1.40	1.26	0.54	1.50	0.63	0.75	4.44	3.30	0.74	9.23
W.1852.	....	1.51	0.13	4.45	1.23	4.89	4.79	4.29	3.47	1.19	3.48	0.30	4.81	13.97	8.14	......	......
W.1853.	0.40	0.50	0.00	0.00	1.05	1.08	2.55	1.21	1.26	0.40	0.26	0.08	1.05	4.84	1.92	0.98	8.79
T. 1854.	0.00	0.00	0.14	0.20	1.10	0.08	2.23	6.01	3.50	0.00	0.99	0.35	1.44	8.32	4.49	0.35	14.60
T. 1855.	0.09	0.20	0.80	0.25	0.05	....	....	....	....	....	....	....	1.10	......	......	......	......

FORT CONRAD AND SOCORRO, NEW MEXICO.

1851....	....	....	....	....	....	....	....	....	....	0.03	0.09	0.39	......	......	......	......	......
1852....	0.01	0.03	0.00	0.07	0.25	2.15	0.65	1.32	1.10	1.63	1.34	0.08	0.32	4.12	4.07	0.12	8.63
1853....	0.23	0.39	0.38	0.00	0.35	0.74	2.78	1.20	0.53	0.00	0.59	0.67	0.73	4.72	1.12	1.29	7.86
1854....	0.00	0.00	0.05	0.01	0.62	0.01	0.41	1.02	2.13	0.34	1.09	0.08	0.68	1.44	3.56	0.08	5.76
1855....	0.00	0.01	0.12	0.08	0.10	0.21	....	....	....	....	....	....	0.30	......	......	......	......
Mean...	0.06	0.11	0.14	0.04	0.33	0.78	1.28	1.18	1.25	0.50	0.78	0.31	0.51	3.24	2.53	0.48	6.76
S. 1849..	....	....	....	....	....	....	....	....	....	....	1.76	0.80	......	......	......	......	......
1850..	0.05	0.52	0.60	0.42	0.12	0.17	1.29	0.54	0.24	1.81	0.92	0.44	1.14	2.00	2.97	1.01	7.12
1851..	0.02	0.45	....	0.45	0.01	0.00	0.40	2.07	....	....	....	....	......	2.47	......	......	......

ALBUQUERQUE, NEW MEXICO.

1850....	....	0.05	0.01	0.02	0.21	0.18	1.26	0.45	0.51	0.28	1.02	0.61	0.24	1.89	1.81	......	......
1851....	0.07	0.56	0.42	0.04	0.03	0.00	0.30	....	....	....	....	....	0.49	......	......	......	......
1852....	....	....	....	0.70	0.07	8.15	0.07	4.06	0.19	0.35	0.16	0.02	0.77	12.28	0.70	......	......
1853....	0.00	0.00	0.01	0.00	0.04	0.00	2.57	3.80	0.07	0.00	0.31	0.30	0.05	6.37	0.38	0.30	7.10
1854....	0.30	0.00	0.43	0.39	1.19	0.28	2.59	1.19	2.67	1.37	1.35	0.92	2.01	4.06	5.39	1.05	12.51
1855....	0.20	0.40	1.02	0.74	0.89	....	....	....	....	....	....	....	2.65	......	......	......	......
Mean...	0.14	0.20	0.38	0.32	0.40	1.72	1.36	2.37	0.86	0.50	0.71	0.46	1.10	5.45	2 07	0.80	9.42

CEBOLLETA, LAGUNA, NEW MEXICO.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1849....	....	....	....	....	....	....	....	....	....	....	....	0.40	......	......	......	......	......
1850....	0.45	1 10	0.63	0.55	0.23	0.28	0 85	0.26	1.37	1.58	0.55	1.84	1.41	1.39	3.50	3.39	9.69
1851....	0.15	2.11	0.10	0.94	0.01	0.00	0.25	2.18	5.82	1.60	0.81	1.15	1.05	2.43	8.23	3.41	15.12
Mean ..	0.30	1.61	0.36	0.75	0.12	0.14	0.55	1.22	3.60	1.59	0.68	1.13	1.23	1.91	5.87	3.04	12.05

SANTE FÉ, NEW MEXICO.

1850....	....	1.26	1.00	0.65	....	....	0.98	0.92	....	0.38	....	1.60	......	......	......	......	......
1852....	....	....	....	....	....	....	....	....	0.91	2.55	1.65	1.36	......	......	5.11	......	......
1853....	0.06	0.69	0.50	0.00	0.98	1.88	7.45	5.42	2.68	0.97	0.43	0.77	1.48	14.75	4 08	1.46	21.77
1854....	0.36	0.12	2.01	1.68	1.16	0.32	4.11	3.86	4.06	2.50	3.54	1.08	4.85	8.29	10.10	1.56	24.80
1855....	0.57	0.20	1.63	0.85	0.68	1.77	....	....	....	....	....	....	3.16	......	......	......	......
Mean ..	0.31	0.57	1.29	0.80	0.74	1.32	4.18	3.40	2.55	1.60	1.87	1.20	2.83	8.90	6.02	2.08	19.88

LAS VEGAS AND FORT UNION, NEW MEXICO.

1850....	....	....	....	0.02	....	....	....	....	0.00	0.00	0.12	3.12	......	......	0.12	......	......
1851....	....	4.23?	0.01	2.11	2.82	0.00	5.10	....	4.63	0.61	1.97	0.33	4.94	......	7.21	......	......
1852....	0.48	0.59	0.00	0.24	0.73	7.05	2.73	5.49	3.04	3.44	2.83	0.02	0.97	15.27	9.31	1.09	26.64
1853....	0.19	0.08	0.77	0.32	0.91	0.11	4.19	3.42	1.59	1.29	0.38	0.18	2.00	7.72	3.26	0.45	13.43
1854....	0.07	0.02	0.63	0.46	0.50	0.69	3.98	1.75	2.99	0.88	1.80	0.60	1.59	6.42	5.67	0.69	14.37
1855....	0.01	0.01	0.43	0.01	2.88	2.12	4.37	....	....	....	....	....	3.32	......	......	......	......
Mean ..	0.19	0.99	0.37	0.53	1.57	2.00	4.07	3.55	2.45	1.25	1.42	0.85	2.47	9.62	5.12	2.03	19.24

CANTONMENT BURGWIN AND FORT MASSACHUSETTS, NEW MEXICO.

B. 1854.	....	....	....	....	....	....	....	....	0.21	0.13	1.03	0.06	......	......	1.37	......	......
B. 1855.	1.06	1.04	0.20	0.08	0.20	0.83	2.64	....	....	....	....	....	0.48	......	......	......	......
1852....	....	....	....	....	....	....	....	....	....	1.84	6.34	1.45	......	......	......	......	......
1853....	0.22	0.76	0.94	0.39	1.49	1.11	3.04	1.48	1.25	....	....	....	2.82	5.63	......	......	......
1854....	....	....	....	....	3.93	0.24	2.14	2.61	1.53	0.35	....	2.30	......	4.99	......	......	......
1855....	0.25	0.67	....	0.45	1.00	0.86	....	....	....	....	....	....	......	......	......	......	......
Mean ..	0.23	0.72	0.94	0.42	2.14	0.74	2.59	2.05	1.39	1.10	6.34	1.88	3.50	5.38	8.83	2.83	20.54

The mean embraces the observations at Fort Massachusetts only.

FORT DEFIANCE, NEW MEXICO.

1852....	....	....	....	....	0.89	2.35	0.90	1.30	1.82	1.60	1.22	1.30	......	4.55	4.64	......	......
1853....	0.40	0.08	1.29	0.10	1.44	0.43	1.43	4.65	2.64	0.94	0.22	0.25	2.83	6.51	3.80	0.73	13 87
1854....	2.00	0.15	0.45	0.93	0.51	1.24	3.94	5.24	3.47	0.62	1.49	1.20	1.49	10.42	5.58	3.35	20.84
1855....	0.83	1.71	3.30	0.50	0.06	0.43	....	....	....	....	....	....	3.86	......	......	......	......
Mean ..	1.03	0.65	1.68	0.51	0.72	1.11	1.57	3.73	2.64	1.05	0.98	0.92	2.91	6.41	4.67	2.65	16.64

FORT YUMA, CALIFORNIA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1851....	0.00	0.01	0.00	0.27	....	....	....	....	....	....	....	....	......	......	......	......	......
1852....	....	....	....	....	....	0.00	0.28	0.33	1.45	0.00	0.35	0.04	......	0.61	1.80	......	......
1853....	0.00	0.00	0.01	0.00	0.00	0.00	0.25	0.69	0.13	0.00	0.18	0.52	0.01	0.94	0.31	0.52	1.78
1854....	0.00	0.28	0.80	0.00	0.00	0.00	0.01	2.37	0.17	0.30	0.00	0.57	0.80	2.38	0.47	0.85	4.50
1855....	0.12	1.26	0.00	0.00	0.00	....	....	....	....	....	....	....	0.00	......	......	......	......
Mean ..	0.03	0.39	0.20	0.07	0.00	0.00	0.18	1.13	0.58	0.10	0.18	0.33	0.27	1.31	0.86	0.80	3.24

SAN DIEGO, CALIFORNIA.

1850....	0.00	1.13	1.00	0.09	0.00	0.68	0.00	0.00	0.00	0.19	2.82	1.93	1.09	0.68	3.01	3.06	7.84
1851....	0.03	1.51	0.34	0.87	0.71	0.01	0.00	0.00	0.02	0.01	0.25	3.74	1.92	0.01	0.28	5.28	7.49
1852....	0.58	1.84	1.87	0.85	0.32	0.00	0.00	0.40	0.00	0.06	1.45	4.50	3.04	0.40	1.51	6.92	11.87
1853 ...	0.50	0.20	1.52	0.25	2.10	0.05	0.00	0.21	0.00	0.00	1.28	1.77	3.87	0.26	1.28	2.47	7.88
1854....	1.46	2.56	2.14	0.75	0.21	0.02	0.07	1.35	0.13	0.01	0.02	3.34	3.10	1.44	0.16	7.36	12.06
1855....	2.40	4.83	1.53	1.82	0.10	....	....	....	....	....	....	....	3.42	......	......	......	......
Mean ..	0.83	2.01	1.40	0.77	0.57	0.15	0.01	0.39	0.03	0.05	1.16	3.06	2.74	0.55	1.24	5.90	10.43

SAN LUIS REY, RANCHO DEL CHINO, AND RANCHO DE JURUPA, CALIFORNIA.

S. 1850..	....	...	....	....	....	....	0.00	0.00	0.00	0.20	3.28	2.22	......	0.00	3.48	......	......
S. 1851..	0.09	0.95	0.21	....	....	....	....	0.00	....	....	....	....	0.21	......	......	3.26	6.95
1855*...	....	....	1.58	3.78	0.61	0.00	....	....	....	....	....	....	5.97	......	......	......	......
1851....	....	....	....	....	....	....	0.00	0.00	0.00	0.00	....	....	......	......	......	......	......
1852	....	....	....	....	....	....	....	....	0.00	0.00	2.89	7.50	......	......	2.89	......	......
1853....	0.25	0.67	3.15	0.33	1.14	0.00	0.00	0.18	0.00	0.00	0.44	2.04	4.62	0.18	0.44	2.96	8.20
1854....	1.64	2.34	3.09	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	0.95	1.50	3.12	0.33	1.14	0.00	0.00	0.09	0.00	0.00	1.67	4.97	4.59	0.09	1.67	7.42	13.77

* At *Fort Tejon*,—the summary embraces only the observations which follow, taken at two posts near each other, *Del Chino* and *Jurupa*.

MONTEREY, CALIFORNIA.

1847....	....	....	....	....	0.03	0.00	0.00	0.00	0.00	1.10	3.10	0.00	......	......	......	......	......
1848....	1.70	2.20	2.40	0.65	2.50	0.50	0.50	0.00	....	....	....	....	......	......	......	......	......
1849....	....	....	....	....	0.03	0.00	0.00	0.00	0.00	0.01	0.61	3.45	......	0.00	0.62	......	......
1850....	2.95	2.00	1.30	0.33	0.00	0.00	0.00	0.00	0.02	0.00	0.61	2.98	1.66	0.00	0.63	7.93	10.22
1851....	....	....	....	....	....	....	0.01	0.00	0.01	0.20	0.91	4.50	......	......	1.12	......	......
1852....	0.40	0.30	6.12	0.92	0.10	0.16	0.00	0.00	....	....	....	....	7.14	0.16	......	......	......
Mean...	1.68	1.50	3.27	0.63	0.53	0.13	0.08	0.00	0.01	0.33	1.31	2.73	4.43	0.21	1.65	5.91	12.20

FORT MILLER, CALIFORNIA.

1851....	....	....	....	....	....	....	0.00	0.00	0.01	0.00	....	10.41	......	......	......	......	......
1852....	0.42	0.61	15.59	2.59	0.60	0.00	0.00	0.00	0.07	0.07	8.80	20.60	18.78	0.00	8.91	21.63	49.35
1853....	1.20	2.35	5.54	2.25	4.79	0.00	0.01	0.00	0.00	0.00	1.26	1.00	12.58	0.01	1.26	4.55	18.40
1854....	2.26	2.42	0.85	2.08	0.04	0.01	....	....	0.12	0.68	0.00	1.25	2.97	......	0.80	5.93	......
1855....	1.48	1.37	3.64	0.34	0.00	....	....	....	....	....	....	....	3.98	......	......	......	......
Mean...	1.34	1.69	6.40	1.81	1.36	0.01	0.01	0.00	0.05	0.19	3.35	8.31	9.57	0.02	3.59	11.34	24.51

SAN FRANCISCO, CALIFORNIA.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1850....	....	....	8.38	....	0.00	0.01	....	....	....	....	....	....	......	......	......	......	......
1852....	....	....	....	....	....	....	0.00	0.00	0.00	0.69	4.92	12.07	......	......	5.61	......	......
1853....	3.75	1.17	3.72	5.27	0.42	0.00	0.00	0.00	0.23	0.28	2.00	1.86	9.41	0.00	2.51	6.78	18.70
1854....	3.04	5.87	3.11	2.24	0.06	1.05	0.01	0.03	0.03	1.56	0.40	0.60	5.41	0.09	1.99	9.51	17.00
1855....	2.89	2.88	3.23	3.65	1.42	0.00	....	....	....	....	. ..	....	8.30	......	......	......	......
Mean...	3.23	3.31	4.61	3 72	0.48	0.02	0.00	0.01	0.09	0.84	2.44	4.84	8.81	0.03	3.37	11.38	23.59

BENICIA BARRACKS, CALIFORNIA.

1849....	....	....	....	....	....	....	....	....	....	....	4.46	....	......	......	......	......	......
1850....	4.44	1.68	2.45	....	....	0.00	0.00	0.00	0.01	0.00	1.03	2.18	......	0.00	1.04	8.30	......
1851....	0 88	0.23	5.83	1.37	0.59	0.00	0.00	0.00	0.04	0.10	1.34	4.92	7.79	0.00	1.48	6.03	15.30
1852....	0.36	0.00	4.78	0.03	0.00	0.03	0.00	0.00	0.01	1.05	2.28	9.03	4.81	0.03	3.34	9.39	17.57
1853....	2 48	0.44	2.66	3.12	0.36	0.00	0.00	0.00	0.00	0.04	1.71	0.99	6.14	0.00	1.75	3.91	11.80
1854....	2.06	4.80	2.05	1.56	0.00	0.01	0.00	0.00	0.00	2.26	0.87	1.45	6.27	0.01	3.13	6.50	15.91
1855....	2.86	2.79	3.13	3.25	2.01	0.00	....	....	....	....	....	....	8.39	......	......	......	......
Mean...	2.18	1 66	3.48	2.33	0.59	0.01	0.00	0.00	00.1	0.69	1.95	3.72	6.40	0.01	2.65	7.56	16.62

SACRAMENTO AND CAMP FAR WEST, CALIFORNIA.

1849 ...	....	....	....	....	....,	....	0.00	0.00	0.00	0.20	6.41	5.20	......	0.00	6.61	. ....	......
1850....	6.31	0.60	5.60	1.40	0.01	...	....	....	....	0.01	2.10	2.00	7.01	......	......	8.91	......
1851....	2.06	1.16	3.44	3.06	0.86	0.00	0.00	0.00	0.36	0.10	1.86	6.63	7.36	0.00	2.32	9.85	19.53
1852....	1.60	0.13	10.05	....	....	....	....	....	....	....	....	....	......	......	......	......	......
Mean ..	3.32	0.63	6.36	2.23	0.43	0.00	0.00	0.00	0.18	0.10	3.46	4.61	9.02	0.00	3.74	8.56	21.32

FORT READING, CALIFORNIA.

1852....	....	....	....	2.87	....	1.06	0.00	0.00	0.00	0.48	8.48	11.18	......	1.06	8.96	......	.. ...
1853....	4.66	3.18	7.11	4.57	0.73	0.00	0.00	0.24	0.02	0.02	2.52	1.18	12.41	0.24	2.56	9.02	24.23
1854....	2.90	2.15	0.80	3.07	2.40	0.00	0.01	0.00	0.00	2.26	0.87	1.45	6.27	0.01	3.13	6.50	15.91
1855 ...	3.69	6.95	5.68	5.17	5.43	0.20	....	...	....	....	....	....	16.28	......	......	......	......
Mean ..	3.75	4.09	4.53	3.92	2.85	0.31	0.00	0.08	0.01	0.92	3.96	4.60	11.30	0.39	4.89	12.44	29.02

FORTS HUMBOLDT AND JONES, CALIFORNIA.

1854....	4.83	6.80	5.14	5.58	0.12	0.69	0.00	0.00	0.00	3.69	0.98	1.18	10.84	0.69	4.67	12.81	29.01
1855....	3.30	4.45	6.80	....	2.80	1.60	....	....	....	....	....	....	......	......	......	......	......
1853....	3.78	1.38	3.39	1.02	1.17	0.41	0.13	....	....	0.48	4.47	1.19	5.58	......	......	6.35	.....
1854....	0.54	1.00	0.75	1.99	0.21	0.63	0.20	0.21	0.00	4.18	0.48	1.13	2.95	1.04	4.66	8.47	17.12
1855....	1.58	3.83	5.24	1.50	0.87	....	....	....	....	....	....	....	7.61	......	......	......	......
Mean Ft. J.	1.97	2.07	3.13	1.50	0.75	0.52	0.16	0.21	0.00	2.33	2.97	1.16	5.38	0.89	5.30	5.20	16.77

FORT ORFORD, OREGON.

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
1852....	....	....	....	....	....	0.33	0.31	1.00	....	....	12.03	16.91	......	1.64	......	......	......
1853....	11.81	6.65	6.45	6.11	1.89	....	...	....	....	....	....	....	14.45	......	......	......	......
1854....	....	....	....	....	....	....	0.00	2.56	0.19	11.10	4.59	6.37	......	......	15.88	......	......
1855....	7.81	6.04	9.84	5.17	8.60	1.80	....	....	....	....	....	....	23.61	......	......	......	......
Mean...	8.81	6.35	8.24	5.64	5.24	1.06	0.16	1.78	0.19	11.10	8.31	11.64	19.12	3.00	19.60	26.80	68.52

FORT VANCOUVER, OREGON.

1849....	....	....	....	....	....	....	....	....	....	....	....	6.00	......	......	......	......	......
1850*...	6.66	2.60	6.71	0.60	0.40	3.22	8.35	0.00	0.93	2.69	4.90	1.29	7.71	11.57	8.57	10.55	38.40
1851....	9.55	2.04	4.08	....	....	....	....	....	....	....	....	7.93	......	......	......	19.52	......
1852....	9.31	4.77	4.26	6.56	3.49	1.77	....	....	....	1.55	7.37	13.37	14.31	......	......	27.45	......
1853....	9.30	4.21	2.47	1.72	2 33	0.90	0.30	0.39	2.00	3.66	11.57	3.22	6.52	1.59	17.23	16.73	42.07
1854....	....	2.83	1.22	2.78	0.75	2.41	0.00	1.72	0.00	2.31	3.19	8.34	4.75	4.13	......	11.17	......
1855....	13.29	3.84	3.99	2.04	3.77	2.43	...	....	....	....	....	....	9.80	......	......	......	......
Mean ..	9.62	3.38	3.79	2.74	2.75	2.68	2.85	0.70	0.99	2.55	6.76	6.69	9.28	6.23	10.30	19.69	45.50

* At *Columbia Barracks* from September, 1850.

DALLES OF COLUMBIA, OREGON.

1850....	....	....	....	....	....	....	0.01	0.00	0.09	0.91	1.14	0.19	......	......	2.14	......	......
1851....	3.81	1.70	1.79	....	....	....	....	....	....	....	....	....	......	......	......	......	......
1852....	....	....	....	....	....	....	....	....	....	0.25	2.75	8.01	......	......	......	......	......
1853....	3.02	1.09	0.27	1.29	0.62	0.00	0.08	0.61	1.41	0.24	4.90	0.95	2.18	0.69	6.55	5.06	14.48
1854....	2.79	0.73	0.36	1.52	0.00	0.15	0.00	0.18	0.84	1.91	1.41	2.50	1.88	0.33	4.16	5.02	11.39
1855....	3.03	0.63	1.87	0.17	1.08	0.24	....	....	....	....	....	...	3.12	......	......	......	......
Mean ..	3.16	1.04	1.07	0.99	0.57	0.13	0.03	0.26	0.78	0.83	2.55	2.91	2.63	0.42	4.16	7.11	14.32

FORT STEILACOOM, WASHINGTON TERRITORY.

1849....	....	....	....	....	....	....	....	....	....	....	9.42	8.15	......	......	......	......	......
1850....	8.52	4.83	6.70	1.00	0.30	0.40	0.20	0.00	1.20	2.40	5.14	2.62	8.00	0.60	8.74	15.97	33.31
1851....	15.30	1.47	2.20	3.09	1.95	0.55	0.36	0.81	2.68	3.96	3.02	3.93	7.24	1.72	9.66	20.70	39.32
1852....	11.50	5.43	5.12	3.34	0.12	0.82	0.93	1.78	1.02	3.72	6.17	8.84	8.58	3.53	10.91	25.77	48.79
1853....	8.14	3.24	2.62	1.57	2.03	3.09	0.23	1.19	4.99	6.93	18.41	4.42	6.27	4.61	30.33	15.80	57.01
1854....	8.69	7.57	2.89	12.50	0.88	5.68	0.00	3.93	3.46	4.37	7.37	12.87	15.27	9.61	15.20	29.13	69.21
1855....	5.10	8.40	7.85	7.14	5.81	1.40	....	....	....	....	....	....	20.80	......	......	......	......
Mean ..	9.54	5.16	4.56	4.77	1.86	1.97	0.34	1.54	2.67	4.28	8.25	6.81	11.19	3.85	15.20	21.51	51.75

REPORT

ON THE PROMINENT FEATURES OF GENERAL CLIMATE IN THE UNITED STATES,

AS EXHIBITED IN

THE DISTRIBUTION OF TEMPERATURE AND OF RAIN,

AND IN

EXPLANATION OF THE ILLUSTRATIVE CHARTS.

REPORT.

It has been thought proper to accompany the present publication of Meteorological Observations by a general review of the prominent features of American Climatology, so far as the basis afforded by the published observations of the Army Medical Bureau would warrant positive deduction. The period embraced by these observations is now sufficient to afford the great desideratum of well-determined mean quantities in the conditions which have positive numerical measures; and from this basis of mean results the range of extremes may be measured, and the general character of the irregular changes of successive months and years may be quite thoroughly examined and illustrated.

Each of the classes of observation may be analyzed in this manner, and, though arbitrary values are assigned to the force of winds and to the clearness of sky, the general results of each notation may be compared, for the various districts, with sufficient definiteness. In any general system of observations, also, whatever errors exist in the use of scales of notation, or in the reading of instruments, are usually uniform throughout that system; and the comparison of its results at separate stations among themselves, will readily disclose the contrasts and measures of difference of each position, and for any month or single date compared. In such a uniform system, successive dates or periods may also be compared with equal effectiveness; and this joint comparison of various districts, at the same dates and for successive periods, constitutes the most thorough and satisfactory analysis possible, and it will be found to eliminate every considerable error in reduction and to develop their prominent points of value with great distinctness.

In the extent of area embraced by these observations there is scarcely a precedent in climatological investigation. The last five years occupy the opposite coasts of the continent almost equally, and the more important interior districts are also well represented. Of the unoccupied portions of the interior, west of the Rocky mountains, there are some representative stations, and there is a known identity of the general features of climate over every portion of this area. As a whole, the field is *an entire continental area in temperate latitudes*, with the normal sea-climates of these latitudes on each side. With so great diversity of surface and configuration as the western part of the continent presents, we may anticipate almost every peculiarity of climate known to these latitudes also, and if the observations in the new districts were extended over a greater period of time the whole collection should form the best possible basis for determining what the normal or natural climates of the temperate latitudes are—the normal distribution of heat and moisture particularly.

The period of time is sufficient for most purposes of the comparison of successive dates. For the records at stations in the Mississippi valley, and eastward, it is sufficient to throw great light on the questions of permanence of temperature, and of other conditions, and on the question whether there is any periodicity or regular return of the changes of temperature and of the quantity of rain. The single measures of variability, occurring in the last few years, may be partially compared for the opposite portions of the continent, and may give us some approximation to these measures for the western interior and the Pacific coast, and though the mean results there are for imperfect periods, if there are great progressive changes of temperature, or of any other condition, or decisive periods of return in the measures of disturbance or variation, some outline of them should appear in this connection. If such changes exist they cannot fail to appear, in some degree, in the more extended series at the older military posts, and in the comparison of different parts of the continent for recent years.

There are but two positive measurements, those of the hygrometer and barometer, which are not embraced in the present reductions and publication, and these are less necessary than others to the first collection of materials for climatological investigation. The frequency and amount of rain is a rude general measure of humidity, and taking these data with the accompanying temperatures, the deductions based on the quantity of moisture contained in the air are generally outlined. It is easy to distinguish the districts characterized by great proportions of moisture for any part of the year, and also those marked as extremely arid, of which last there are striking examples in the interior and near the Pacific. It is more difficult, however, to obtain any outline of the results of barometric measurements without use of such observations directly. The mean differences of atmospheric weight are to some extent derivable from the altitudes of the posts, and most of these altitudes have been determined with great care from barometric and level surveys. The barometric mean of Santa Fé is but about twenty-four inches, or a diminution of one-fifth of the atmosphere at sea-level, and this would be the proportion for a very large area of the interior. A still larger area has an altitude of four thousand feet, with a barometric mean of twenty-five and three-fourths inches nearly—one-seventh less than the atmosphere at sea-level. Some general idea of the relation of the altitude and mean position of the barometer may be gained by converting these altitudes into barometric readings, and bearing them in mind in considering other conditions. The oscillations of the barometer are very important in the climates east of the Rocky mountains, and they may generally be taken as always large in the colder months. What their precise relation to any feature of temperature changes, or to other peculiarities may be, would be difficult of determination in any case.

The most important result which these records appear adequate to define is the *Distribution of Heat* on the continent, and this distribution may be examined as well for periods of time through a series of years, as in regard to space at the same time, or in the comparison of districts. They also embrace vertical distribution, or the comparison of results at all altitudes below eight thousand feet, and in this feature they give new views of the temperature of districts at these altitudes, as distinguished from that of isolated mountains, or of vertical ascents from a plain. A large portion of the interior, extending from the southern boundary of New Mexico at El Paso to the sources of the Missouri, may be regarded as made up of alternations of mountain, plain, and valley, rising and falling from a mean line elevated five thousand feet above the sea. Even the imperfect periods and scattered stations here must give new and valuable results in regard to the temperature distribution for such altitudes.

The second principal result is the *Distribution of Rain*, or of atmospheric precipitation in rain and snow, and this distribution has the same features as that of temperature in regard to the comparisons of the various districts and periods of time.

The illustration of these two leading conditions is given mainly for the mean results, though the extremes have in some instances been noted in a similar graphic representation. The recognized value of thermal lines renders their use necessary to show the distribution of heat, yet shaded areas would be more expressive in representing the greater and less measures for the different districts. The use of shaded areas in showing the quantity of rain is too well established to admit of change, and the borders of these areas require to be marked as though they were abrupt limiting lines, as in the case of the isothermals, yet the quantities in both cases pass into each other by insensible transitions—the line on the thermal chart and the edge of the shading in the rain illustration marking the boundaries of areas differing according to the figures given them in each case. The district between two isothermals is, however, at the mean of the temperatures marked on the two lines, while the quantities of rain are placed on the central portions of these areas and not on the bordering lines.

The peculiar physical contrasts of altitude and surface required a map for the basis of this illustration rather than a chart, and the more important of these features were therefore brought out upon it as clearly as might readily be done without confusing the illustration. East of the Rocky mountains the vertical topography is not particularly important, and the elevated districts are, therefore, only indicated at their borders, or as plateaux. The Alleghany or Appalachian range declines at both extremities, and no great interruptions of the isothermal lines appear in passing it, the interior valleys rising nearly to the temperatures at each side. Its southern portion causes the greatest curvatures in passing from the Ohio valley to the Atlantic, but these are all regular and intelligible.

There is an important plateau in the northwest, at the head of Lake Superior; and elevated districts, less rough and abrupt than those near the lake, denominated *coteaux*, lie between the Mississippi and Missouri, re-appearing west of the Missouri in the *Cote Noir*, or Coteau Noir, of Pike and Long—the Black Hills, as they are generally designated. By the most thorough comparison of authorities it is concluded that this is mainly a *coteau*, or hill-bordered plateau, for the portion east of the 105th meridian, and that it does not become a range of mountains until reaching this meridian, where it consttutes a portion of the general mass of the Rocky mountains. It is therefore so designated on the map. In Texas there are two or three steps by which the altitude of the Llano Estacado of three to four thousand feet is attained. They are not so regular as is indicated by the map, but this sufficiently defines them for climatological purposes. The first rises from a line six hundred feet above the sea at San Antonio, to twelve hundred at Forts Martin Scott, Mason, &c. The first chain of posts, embracing Forts Graham, Gates, Lincoln, &c., is at the entrances to this plateau. The next uplifts are more irregular, and the posts of the newer or second chain are usually placed in comparatively deep vallies. Beyond these the whole country attains a still higher level, but its mountainous and abrupt features are mainly on the southern portion near the Pecos river. The remainder of the vertical topography is intended to express the principal abrupt mountain ranges and the general plateaux, and also to show the predominaitng chasm-like or cañon character of the river borders. The Colorado of California and its branches, and the middle portion of the Rio Grande, are the chief instances, and those chasms are often thousands of feet in quite precipitous descents from the general level of arid and lofty plains and mèsas. There are incomplete points in this topography which should be noticed; the mountains north of Fort Owen in Oregon, and the Bitter Root range at the south and west of this point toward Lewis' Fork of the Columbia, should be much more distinct. The ranges of the Rocky mountains, at the joint sources of the Grand river, the Arkansas and the Platte, are scarcely complete, as also the northern and southern portions of the Great Basin. Both these last districts are little known, further than that they are made up of isolated basins and isolated mountain ranges of great general elevation above the sea.

Some general features of the character of the surface are given where this is necessarily associated with the climate, as the distinction of particularly arid districts is indispensable to a proper view of temperature and rain distribution. They are distinguished as *arid districts* primarily, and they may be either sand-deserts or sage-plains. Those of the upper Missouri are barren tracts rather than either, with a various vegetation and often with profuse rains, but wholly uncultivable from several causes. The arid plains between the Platte and Canadian rivers are in greater part sand-deserts, especially in the vicinity of Long's and Pike's Peaks, and south of the Arkansas. The Llano Estacado is a dry plain of clay and alkaline earths, a portion of it covered with coarse vegetation, for part of the year at least, and a portion near the Pecos is again sand-desert. The "sage-plains," or dry districts with little vegetable growth except varieties of artemisia, begin on the western border of the plains of the eastern Rocky mountain slope, and cover much the larger portion of the whole country westward; and this predominating aridity it was quite essential to represent in connection with the distribution of temperature and of rain. In the valley of the lower Rio Grande a portion of the arid district is sandy; and the Jornada del Muerto of the upper Rio Grande, between Fort Craig and Doña Ana, is mainly sand-desert. That of the Colorado of California is the principal sand-desert, however, and it embraces a large area of the southern part of the Great Basin. In the vicinity of Fort Yuma the sands alternate with tracts of clay, and these, with saline lakes and basins, and short abrupt mountain ranges, make up almost the whole of the Great Basin of the interior. In Oregon the desert notation is applied to districts half sands and half sage-plains, as in other cases.

But one distinction of a humid district is made, which is that near the Mississippi and along the Gulf coast to Florida, surrounded by an interrupted line. It defines the district of greatest precipitation in rain, and of the greatest prevalence of surface waters derived from atmospheric precipitation. Whether these facts react on the climate is a question which has often been asked. In a portion of this district lagoons and bayous characterize the surface, and the rivers are marked by numerous lake-like expansions, and in other portions the heavy rains are immediately borne off by rivers of sufficiently rapid descent. The distinguishing feature is thus the abundance of water falling in rain as a constant result, and either with or without the presence of waters so derived in great quantity on the surface. A district at the sources of the Mississippi is distinguished for the great number of its fresh-water lakes and ponds, and it has profuse rains at some period of the year, but its general temperature is too low to identify it with that of the lower Mississippi, or to render its introduction into a physical chart necessary. On the Pacific coast of Oregon there are also excessive rains at the cold season, and farther up this coast great quantities of water so accumulated characterize the general surface, but these are features of a climate generally cold, and are found in much of British America and in northwestern Europe.

The observations here published form a very ample basis for examination of all the general features of climate not observed instrumentally. The *winds* have a prominent place, and it is easy to distinguish the general features of atmospheric circulation in the mean results of even the arbitrary notation necessarily employed in observation. For the purpose of giving the nearest approximation to true results the great labor of combining the sums of the numbers denoting force has been undertaken, and in the summaries for single months and for the year the advantages of this course are very apparent, and the differences from simple numerical results show the direction in which the quantities should be further changed to represent the actual movement in miles per hour. If the "sum of force" is in one case three times as great as the number of winds, and in another but twice as great, the disproportion would be doubled, at least, if the movement were truly represented in miles per hour. A very good resultant movement may be derived from the sums of force in all cases, and the irregularities may thus be reduced to the mean movement with sufficient precision to show what all the important movements of surface atmosphere are.

The *clouds* and *forms* of *precipitation* in rain and snow, with the general phenomena defined by the term *weather*, complete the list of distinctive subjects observed. These may not be compared as positive quantities, like the temperature and rain measurements, but they are of great practical interest, and are readily understood in any scale of notation. These observations are sufficient for a more thorough examination than can now be made, and some of the more prominent points of interest only can receive attention.

The statistics of temperature and amount of rain will be regarded as quantities determined with sufficient accuracy for any purpose of scientific comparison, and the number of observations combined in the results that are used is thought sufficient to neutralize every considerable error in their details, and to leave no doubt of the general correctness of the positions they are assumed to establish. Where observations are so greatly multiplied the principal care is required in their arrangement, and in the mode of presenting them, and when this is correctly done they are easily seen to establish some general conclusions, and it only becomes necessary to recognize and illustrate these in an intelligible manner. In this mode of treatment there is no necessity for the introduction of theoretical views, and there are few occasions for reference to remote causes or to the solution of anomalies and striking features of the results beyond what is clearly seen to be the necessary relations when the points are explained. It is sometimes necessary to go beyond the limits of the continent to explain some features of the climate, however, but in the present case such references may be made to very reliable observations, and the resulting illustration is entirely satisfactory.

Nearly every feature may also be illustrated and explained by the use of numerical quantities and of positive measurements. Even in the case of wind and weather phenomena, the use of a numerical notation has great advantages over the use of symbols or of descriptive terms for the purposes of general comparison, and the leading results are much more readily disclosed in the summaries. It is not essential that the scales of notation should represent absolute quantities, if the approximation is reasonably near, and there has yet been no instrumental measurement of winds which gives better results than the estimate of the observer carefully made in a scale of one to ten, and the interpretation of these numbers, separately, in miles per hour. The summaries of these observations here given include the "sum of force" obtained by adding the recorded numbers of this scale, and they are, by so much, a nearer approximation to positive results than the sums of the number of observations only. Each of the arbitrary scales of notation was fortunately well adapted to the habit of observers, and they were uniform over so great a period, and embrace so great a number of observations in the summaries, that they have unusual value, and may be relied upon as expressing quite positive results.

It is proper to state in this connection the general principles which have controlled the designation of observations as inaccurate in any case, and the rejection of single observations or entire records in the computations. It is, of course, impossible to submit a mass of observations of this character to rigid analytical tests in detail, or even in the degree of detail which may be applied to the summaries as single results. The great reliance for eliminating error in all cases has been such comparison as it was possible to make in recognition of the natural symmetry of this class of phenomena. This symmetry appears as decidedly in the relations of general distribution as in those of succession or continuation; or, in other words, different portions of a general district show a correspondence, in mean results particularly, analogous to the correspondence of successive observations at any one point. Changes of temperature may, indeed, to a certain extent, exchange place for time in the districts where the atmospheric movements are considerable.

Marked discrepancies or departures from this general symmetry are, therefore, conspicuous in any class of observations of this character, and they may be readily and safely detached from any connection which they clearly distort. Observations of temperature, particularly, may be so distinguished, and their measure of error defined, by mere inspection in the proper arrangement, and the application of the most elaborate formulæ of elimination would accomplish little more for results of this character. The number of observations is now such in this department of meteorology that no series of them is isolated, or is dependant on itself alone for principles of correction, but all are points in a general frame-work of mutual relations and mutual dependance. It is mainly the power of a field so extensive to perfect its own proportions and symmetry, both in time, and in place or area, which is relied upon in deduction from the temperature records in the present case, and if the criticism and comparison shall have been made with the proper care, the results are believed to be as reliable as any which may be reached at present in this field, and to be substantially correct as a whole. A rigid mathematical analysis applied to these principal series, and to their combination by districts, is the most desirable work remaining to be done, and to show what light the principal series of meteorological observation which have been carefully discussed throw on this point it may be well to refer to them here. The best published series of American observations were made nearly at the same dates by Captain Mordecai, at the Frankford Arsenal, near Philadelphia; by Lieutenant Gilliss, at the Naval Observatory; by Professor Bache, at the observatory of Girard College, Philadelphia; and by Captains Riddle and Lefroy, at Toronto, at the observatory established by the British government. The first series began in 1835, and was continued five years; the next two in 1840, continuing, one four and the other five years; and the last in 1841, continuing twelve years. The constants derived from these series were perfect representatives of the conditions of temperature for these periods, and the conformity of these results with them or their differences may show what approximation to positive results of a constant character are now made.

The results of the longest period of observation at Toronto have recently been analyzed, with great care, by Colonel Sabine,* and the leading features of temperature and rain distribution disclosed are taken as sufficiently established by this record alone. Prominent among these is the apparent removal of the winter minimum of temperature to February 14th, or fifty-five days after the winter solstice, while the summer maximum is twenty-eight days only after the summer solstice. This is noticed as an extraordinary anomaly in comparison with the European climate, the mean at several European stations cited in that connection—Konigsberg, Berlin, Prague, Paris, Padua, and Turin—giving July 25th as the date of the maximum, and January 15th as that of the minimum temperature for the year. Comparing this with the first result, the difference for the summer is but three days and that for the winter thirty days—showing the existence of a large anomaly in the American climate. By a rough comparison of this Toronto series with others here, however, we find that it embraces the greatest non-periodic depression of temperature known to our records, and that a series which does not include the year in which this occurs, 1843, or one covering a period so great as to reduce its prominence, gives a very different position for the coldest month and the coldest day, and, in truth, removes the apparent anomaly in the constant distribution, altogether. Of the series at the military posts that at Fort Snelling, for thirty-five years, gives 4.°2 as the increase of heat in February over January, instead of 1°.57 diminution, as at Toronto; that at Watervliet, near Albany, for thirty-one years, 0°.9; and that at West Point, for the same period, 0°.52 excess in February over January. Forts Brady, Mackinac, and Winnebago are the only extended series conforming to that at Toronto; and at each, removing this extreme year, the proportions are restored to those found elsewhere. The district of the great lakes has some effect in throwing the cold minimum forward, and probably the mean of the most extended period would show some anomaly for a district central at Toronto; but it is readily seen that it does not belong to the eastern United States generally. If we had observations in a similar district of the eastern continent, a similar prolongation of the period of the greatest cold would probably appear, and there would be found no anomalous temperature distribution belonging to the United States in regard to the extremes of the annual curve. There are other references to this series in connection with examinations of the annual curve of temperature and the general distribution for the year.

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* Phil. Trans. Roy. Soc., 1853.

The other series here referred to do not cover a period sufficient to fix any similar point in general climatology, or to determine any other constants than those of daily variation of temperature. As the use of precise formulas for correction of the various hours of observation deduced from such series has not been made in these temperature statistics, they may be referred to as evidence that the mean of extensive periods of observation, in a uniform system, is adequate to show the striking features of general climatology without this detailed correction, and that short periods, of the most precise observations, may mislead in regard to these more general features. An extended district, and extended periods at several points, become indispensable to such a purpose, and the use of such a mass of observations, as a whole, does not absolutely require precise analysis of its separate series.

DISTRIBUTION OF TEMPERATURE,

AND

EXPLANATION OF THE ISOTHERMAL CHARTS.

MEAN DISTRIBUTION OF TEMPERATURE FOR THE THREE MONTHS OF SPRING.

The distinguishing feature of the distribution of heat for the spring over the area covered by these observations is its variability, first through the separate months, next in the differences which these give among themselves at any point, and again in the comparison of districts. The mean of the whole period has, for this reason, less of the character of a positive quantity for comparison than the means for summer and for winter, and the relation of the single months is not so direct in comparing districts as in other seasons. In some parts of the territory occupied by the military posts March has all the characteristics of a winter month, and in others May advances fully into the summer. In some general districts, as on the Pacific coast below the 40th parallel, the temperature is very uniform through these months, and in others, as on the central and northern portion of the Great Plains, the differences are quite extreme between March and May. The greater area of the United States, however, exhibits a considerable advance in March on the mean temperature of February, and April and May show nearly uniform differences throughout, April dividing the extremes quite equally, and representing the mean of the three. When this is the case the season may be regarded as an identified period, capable of sufficiently clear definition as a constant, and of a distinct illustration.

As a whole the western half of the continent is much the warmest for these months, and if the mountain plateaux did not intervene the isothermals would be quite uniform, without correction for the lower altitudes, in their direction across the continent from west-north-west to east-south-east. There is a partial exception in the lake district to the uniformity of this direction, and a great accession of heat occurs in the interior plains west of the Rocky mountains as compared with adjacent districts, though this does not constitute a decided anomaly in the general course of the lines and distribution just alluded to. All the measures observed in the interior at considerable altitudes are greater than would be found at the same altitudes of southern Europe.

The relation of the continental or interior temperatures for these months to those of the Atlantic and Pacific oceans show less of contrast than in summer. On the Atlantic coast the mean of the three months would continue the lines without curvature to the Gulf stream, where they would curve considerably northward, and follow its general course for some distance. On the Isothermal Chart the position of the Gulf stream is given roughly or generally, as its influence on the temperature of the sea, in contrast with that of the land, should be recognised at all times when the illustrations of land temperatures is considered. For the northern part of the stream the designation is brought nearer the coast than the axis of the warm current, and it there represents rather the portion which is so near the coast as to make reference to it necessary than the principal volume of warm water.

In May the sea within the Gulf stream is much colder than the continent generally, as the movement of drift ice and cold currents from the Arctic seas is then more decided than in the preceding months, while in March the northern portion, at least, is relatively much warmer. The mean of 32° for this last month has its position in the southern part of New England and New York, and it extends along most of the coast of Maine and at sea in the direction of the southern extremity of Newfoundland, passing this point at a short distance from the land, in the narrow belt which lies between the land and the warm atmosphere of the Gulf stream. The observations which have been made at Halifax and at St. Johns, Newfoundland, indicate the existence of influences greatly depressing the temperature of April and May and rendering the mean for the whole season below that of the same latitudes inland. The mean of five years observation at St. Johns gives 32°.3 as the spring temperature, while at Albion Mines, Nova Scotia, the mean for ten years is 37°.6*, and at the more northern military posts, Forts Kent and Fairfield, it is above 35°.

The course of the isothermals of the higher latitudes of the chart is nearly due west from the Atlantic coast, except where local divergence from this line is caused by the lakes, to the meridian of Fort Snelling, where the lines from 45° to 30°, inclusive, make remarkable curvatures northward over the northwestern plains. The statistics of the military posts at present only indicate this result generally, and the observations of the military surveys, and at the posts of the Hudson's Bay Company have been relied upon for definite positions here. The valley and plains of the Saskatchewan river are shown by Richardson to have a much higher temperature than the districts east in the same or even in lower latitudes; the south branch of this river, in latitude 51°, being distinguished by an early and rapid advance of temperature, giving a mean for May even greater than that observed in the vicinity of the great lakes generally. The observations at Fort Benton, Fort Pierre, and Fort Laramie confirm these positions sufficiently to render this apparent anomaly clearly an established fact of distribution. The higher temperatures in these districts belong to each of the spring months in nearly the same degree, and they will appear less extraordinary if we could suppose the great altitudes of the Rocky mountains removed and a configuration there similar to that of western Europe.

On the Pacific coast, as on the Atlantic, a considerable falling off from the land temperatures occurs, especially in the last month. For the mean of the three months, the sea temperatures observed off this coast are strikingly uniform, and they show but little if any advance on those of winter. For some hundreds of miles, on the 40th parallel, there is very little difference in the sea temperatures for the entire year; and in spring such observations as we possess show them to be quite the same between the 35th and 40th parallels for thirty degrees of longitude westward from San Francisco. The observations given in Maury's Charts furnish about twenty measurements for each area of five degrees extent, in both latitude and longitude, and the means are 56° to the 125th meridian, 55°.4 to the 130th, 55°.5 to the 135th, 56°.4 to the 140th, 57°.2 to the 145th, and 56° for the last observed area, bounded on the west by the meridian of 150° west longitude. These successive results are substantially identical, and they confirm the records at the military posts of the coast, explaining the cause of the singular contrast of their temperatures with those of the interior, in showing very little increase of heat as the summer approaches. It will be seen by reference to the analysis of the summer distribution, that the sea then remains nearly at the same temperature for seven or eight degrees of longitude off the coast, while beyond that point it shows some increase of heat for May, and a rapid change for the months of summer. From this evidence the isothermals would, apparently, extend in right lines westward, on leaving the coast in spring, while in summer they curve abruptly northward, after passing the cold mass of water. The Pacific climates appear to be distinguished for the *identity of the air and water temperatures*, so far as observed, at least the differences are so small that it is not necessary to separate them in the purpose of this comparison.

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* From the observations of Henry Poole, Esq., Superintendent of Mines. Dove gives observations at Halifax, N. S., with a mean of but 32° for the spring, but they appear inaccurate, and embrace but two years. In his essay on isothermal lines he remarks particularly the effect of drift ice in depressing the temperatures of this coast in April and May, and the crowding of the thermal lines between the Gulf stream and the coast. The general refrigeration of the air, and the intrusion of warmer volumes at times is strikingly shown in the frequency of ice formation on the trees, and in the dense and almost constant fogs. For these months the isothermals are drawn by him with sharp depressions about Newfoundland and its vicinity.

By reference to the Isothermal Chart for spring the advance in temperature from April, or the mean of the three months, to May, is seen to be very little for the immediate coast, the line of 55° leaving it near Monterey in both cases. The same line for March differs most from any other, as this is but little north of San Diego at its point of departure from the coast. The measure of difference of these extreme positions is, however, less than three degrees of latitude, while in the Mississippi valley the mean of 55° for March falls southward of Fort Towson, to 33° of latitude, and rises in May above Fort Snelling, to latitude 46°, a range of thirteen degrees, divided quite equally by its mean position at St. Louis.

The cause of this peculiar uniformity of temperature on the Pacific coast will again be referred to in connexion with the summer distribution, as it then attains its maximum influence, and its characteristics may be more readily recognized.

The relation of the spring temperatures of the interior of northern Mexico to those of the adjacent districts of the United States cannot be noticed for want of observations there. A large area of dry basins south of the Rio Grande, and extending from El Paso, with some interruptions, to the Gulf of Mexico, is warm at all seasons, and the isothermals of the Rio Grande above Fort McIntosh may usually be continued northwestward at least across the Bolson de Mapimi. The mountainous districts south and westward of these basins are relatively warmer in spring than in summer, though none of this interior probably attains the temperatures, either in spring or summer, of the Lower Rio Grande and Colorado valleys. The temperature at Vera Cruz for the spring is 77°, and there is probably no part of the coasts of Mexico northward which exceed this, and few which attain the mean of 75°, observed at Fort Yuma and the military posts of the Lower Rio Grande.

In the West India islands the spring temperature is above that at Key West, though the southern portion of Florida is tropical, the mean at Havana and other points being 78° to 79°.5. There is probably no point, therefore, where the land temperature exceeds that of the sea southward, or of the Gulf of Mexico, though they differ very little for the warmer positions named.

The principal lines of the Isothermal Chart differ five degrees in temperature, and east of the meridian of 100° they divide distance on the meridians with great uniformity. On the Atlantic side the range is thirty-five degrees of temperature for twenty-two degrees of latitude, or, excluding the lower part of the peninsula of Florida, thirty degrees of temperature for seventeen of latitude, which is very nearly a decrease of temperature of one degree for forty miles of distance northward. The same decrease is found in the Mississippi valley, and on both these lines the altitude does not attain sufficient importance to sensibly affect this result. The Pacific side is too irregular to give comparable measures, but from the parallel of 30° to Astoria, the same distance which was taken in the first case, there is but one-third the difference in temperature, or one degree for one hundred and twenty miles northing. If the comparison were carried to Sitka, latitude 57°, but five degrees of temperature more are lost, and the same proportion or rate of diminution is still maintained.

The relation of the differences separating the isothermals of the principal portion of the continent east of the Rocky Mountains is such that the successive months of spring would remove one to very near the position of another, and the mean of 65° for May, of 55° for April, and of 45° for March, would occupy nearly the same position. The lines as drawn are quite correct representatives of the temperature of April. To place on these the temperatures of May the line of 60° becomes 70°, that of 55° becomes 65°, &c.; and the reverse if March is illustrated. This feature of the temperature distribution for these months will be better understood by reference to the following measures of increase of heat through the spring months at several stations. The quantities given are the differences from March to April, April to May, and May to June, all taken from the mean results of the series.

In the south these measures of difference are less, and in the northwest they are greater than ten degrees, but for much the largest portion of the area east of the plains this number would indicate the march of temperature in these months quite correctly. The differences at the posts of the Pacific coast and at some European stations will illustrate the contrast presented in this season there:

Stations.	Mean of March.	March to April.	April to May.	May to June.
Fort Sullivan	30.8	9.6	8.8	7.6
Fort Preble	32.5	10.4	9.9	10.3
Fort Columbus	38.3	10.4	10.7	9.0
Fort Niagara	34.5	9.7	11.5	9.4
Alleghany Arsenal	39.0	10.9	11.0	8.3
Fort McHenry	42.3	10.4	10.4	8.6
Fort Washington	46.8	10.3	11.1	8.1
Augusta Arsenal	55.8	9.3	7.0	7.0
Fort Gibson	52.2	8.8	8.1	7.7
Fort Scott	43.1	12.6	9.7	7.4
St. Louis	42.3	12.7	10.0	9.2
Newport Barracks	43.4	10.0	11.4	8.8
Detroit	35.4	10.8	9.8	9.6
Fort Howard	31.3	12.1	12.3	10.3
Fort Snelling	31.4	14.9	12.6	9.5
Fort Leavenworth	42.2	13.3	8.2	7.7
Council Bluffs	33.8	18.0	10.4	10.7
Fort Kearney	34.5	12.6	11.7	10.0
Fort Laramie	36.8	10.8	8.5	11.2
San Diego, California	56.0	5.2	1.5	4.6
Monterey, California	51.4	2.3	3.0	1.1
San Francisco, California	52.8	2.5	0.0	3.5
Fort Orford, Oregon	49.6	1.5	3.7	4.2
Fort Vancouver, Oregon	44.1	8.4	6.4	3.7
Fort Miller, California	56.7	6.2	6.0	4.9
Fort Yuma, California	66.1	7.3	4.3	10.5
Santa Fē., New Mexico	40.7	10.5	5.8	11.8

STATIONS—Continued.

Stations.	Mean of March.	March to April.	April to May.	May to June.
Fort Union, New Mexico....	39.3	9.9	7.1	9.5
Fort Massachusetts, N. M...	31.3	13.6	4.6	8.8
Fort Defiance, New Mexico..	38.3	8.3	4.4	13.0
London, England..........	42.5	4.4	6.6	7.0
Dublin....................	43.2	4.8	6.3	5.9
Paris......................	44.0	5.7	9.6	4.6
Amsterdam................	40.7	7.4	7.6	6.8
Vienna....................	40.8	11.0	10.3	5.4
Berlin.....................	38.1	9.3	9.1	6.8
St. Petersburg............	25.5	11.6	11.4	11.4
Moscow....................	26.7	15.0	12.7	8.0
Sebastopol................	42.3	8.6	10.6	10.5
Barnaoul, Russia in Asia....	9.2	24.1	17.4	11.0
Pekin, China..............	43.1	13.1	11.1	7.3
Fort Ripley, Minnesota.....	24.3	16.4	12.2	10.0
Fort Churchill, Brit. Amer...	12.0	8.0	18.0	12.0
Boothia Felix, Brit. Amer...	—28.7	26.2	18.2	18.5

These comparisons show that the advance of temperature in spring is quite uniform through the three months, and that the central areas of the United States correspond with Germany and Central Europe in this respect. From March to April and from April to May the advance is more regular than in the approach to the mean for March and to that for June. In short, the uniformity of the advance in temperature belongs to a less period than three months in the continental climates. The least advance belongs to the coast of California, and it has been alluded to already to some extent. Even the interior posts of Yuma and Miller, where excessive heats prevail in summer, show a less rapid march of temperature in spring than the Atlantic posts. The more elevated district of New Mexico alone exhibits the characteristics of a continental climate in this respect. The modified climates of Western Europe appear in the measures for London, Paris, &c., and at Moscow and Barnaoul, European and Asiatic Russia, the great measures of difference belonging to the most extreme continental climates appear. Fort Ripley gives the most extreme measures observed at any point in the United States, and the Arctic regions of British America alone exhibit the differences which are found in the interior of Asia, but which are there connected with much higher absolute temperatures.

The district of most rapid advance of temperature in spring in the United States has also a comparatively high temperature for the month of March, so that the transition to summer is completed before June. At Council Bluffs March is warmer than at Fort Sullivan, and the difference between this month and April is twice as great at the former post. The average of twenty degrees advance in the two months at eastern stations generally corresponds to an average of twenty-eight for a large area central at Fort Snelling, and an average of twenty-five degrees for a still larger area surrounding this, and reaching to the lakes on the east, to St. Louis and Fort Kearney, and to near the sources of the Missouri northwestward. The greatest mean advance is of eighteen degrees for thirty days, or six-tenths of a degree daily.

The irregular or non-periodic distribution of heat for the spring is a feature of great practical as well as scientific importance, and it presents more noticeable points, which do not appear in the determined mean temperatures, than any other part of the year. Some of the more prominent of these appear in the comparison of the means for the same month and of the same season for successive years; and some measures of the last named variation are illustrated in the isothermal charts by the lines representing the maximum and minimum positions of an isothermal of any degree. The areas east Rocky mountains only could be intelligibly illustrated in this manner, as the periods at the newer of the posts are insufficient to show whether the entire measure of range is embraced. This period is ample for the older posts, however, as a series of fifty years since 1800, and detached series previous to that date from 1743, exhibit no extremes greater than the low temperature of 1843 and the high temperature of 1842 for the spring. Extremes scarcely less than these fall between the years 1830 and 1840 in some limited districts.

As illustrated by the lines of the chart, the minimum of any degree is designed to represent the extreme point to which the temperature of any locality on the line may fall in any year, and not the lowest position of the line in any single year for the whole area. The lowest point observed in the Mississippi valley rarely occurs at the same time that the greatest extreme falls on the Atlantic coast; the lines are, therefore, the measures of *maximum variability* at each point. Comparing these measures on the Atlantic coast, the range of the mean of 45° is from Fort Mifflin to Hancock Barracks, about seven degrees of latitude, and somewhat more above or north of its mean position than south of it. In the west its greatest range is from near Fort Ripley to a point midway between Fort Leavenworth and Fort Scott, one of these last giving 42°.5, and the other 47°.5 as the minimum in 1843, and the short period at Fort Ripley giving 42°.5 as the maximum in 1855. The measure of range at Fort Snelling is 5°.2 above the mean in 1825, and 12°.1 below it in 1843. The same measure of range would give a maximum of 45° at Fort Ripley, and the range of this isothermal, as thus defined, is over nearly nine degrees of latitude, or more than six hundred miles. The range in distance is no greater than this on the western border of the Plains, apparently, though the isothermals are much more widely separated there, as the variation of temperatures in successive years is certainly much less. As a possible transfer of the mean temperature of an entire season, the measure for all parts of the eastern and central areas is certainly very great, and it has no parallel at the European stations where the same period has been observed and the comparison may be fairly made.

The maximum and minimum position of other lines between 40° and 65° has nearly the same measure of range, diminishing, however, towards both extremes. There is some conformity to a rule placing a minimum of any degree in the position of a mean of five degrees greater, and a maximum on a mean of five degrees less;—thus the maximum of 45° is nearly identical with the mean of 40°, and the minimum of 55° with the mean of 60°. One decided exception to this is found in the greater depression of the minima of 40° and 45° in the Mississippi valley, or the greater separation of these from the mean lines which they elsewhere so nearly follow. The greater depressions of temperature, as well as the greater heats here, attain their most extreme measures, as may be seen in the record for 1843 particularly.

On the Pacific coast the measures of variation would, from analogy, be much less, and the limited period of observation gives insufficient data for illustrating this feature of variability. At Fort Steilacoom, for six years, the greatest range is 2°.5, at Fort Vancouver 2°.5, at San Francisco 3°, at Benicia 4°.5, and at San Diego 4°.5—the same six years, 1850 to 1855, giving 8° variation at Fort Snelling, 11° at Fort Leavenworth, 5° at Alleghany Arsenal, and 4°.6 at Fort Columbus. In New Mexico the range for the few years observed appears to be large, yet the observations are not entirely reliable at Fort Fillmore and Albuquerque, where the greatest differences of 10° and 6°.7 occur, the extreme years being 1852 and 1855.

In the lower portions of Texas and Florida—districts approaching tropical temperatures—the former gives a range of 4°.5 at two or three posts—Fort McIntosh and Ringgold Barracks—for the last six years, and the latter a much less range, or but 1°.5 in the latitude of Fort Brooke, and but 2° at Key West. At two or three posts in Florida a sufficiently extended series of years has been observed to give the probable extremes of the spring temperature there, and from these 1838 and 1843 appear to have given the lowest temperatures, which were 4°.5 below the mean at Fort Marion, 3°.5 at Fort Brooke, and 2°.1 at Key West. The highest were in 1826 at the first two localities, and in 1854 at Key West, the differences being 5°.8, 3°.6, and 1°.8 respectively. The range in Northern Florida and Texas shows a measure of variability in the spring temperatures which identifies these districts with those having continental climates, notwithstanding their high temperature.

The range of the mean temperatures of single months is much greater than might be anticipated from the measures just given, and two or three representative stations may be cited which will sufficiently show what it is. At West Point the range for March is 20° between 1842 and 1843, at Watervliet 17° for the same dates, at Alleghany Arsenal 20°.7, at Detroit 22°.5, at Fort Brady 18°.1, at Fort Crawford 25°.7, and at Fort Snelling 34°.5—in each series here cited these years presenting both extremes in much greater degree than any others observed. In lower latitudes Fort Monroe gives 20°.1 as the variation for the same dates, Fort Marion 14°.6, Mount Vernon Arsenal 18°.9, New Orleans 19°.3, Fort Towson 26°.1, Fort Gibson 23°, and St. Louis 33°.2. In lower Florida, Fort Brooke gives 10°.3, but Key West unfortunately was not observed. In nearly all the tables of the longer periods the years 1842 and 1843 give the extreme measures of the series, and the highest measure is generally at the mean temperature of the next month, April, while the lowest, in 1843, is several degrees below the mean of January in every case. This is an instance of the oscillations characteristic of American temperature range, where the extreme depressions go much farther below the averages than the extreme heats rise above them—the fall of temperature in the present case at Fort Snelling being 26°.8, while the excess of the warm extreme was but 7°.7. For several posts near Fort Snelling the absolute mean for 1843 was but two or three degrees above the lowest temperatures of any winter month.

The range of mean temperature in April and May is much less, that for April at Fort Snelling being 22°, or eleven degrees below in 1850, and eleven above in 1839. At Fort Leavenworth the same dates give 18°.5 of range, at Fort Howard 15°, Alleghany Arsenal 15°, West Point 12°, and Fort Sullivan 10°. The variability remains large, however, at southern posts; at Fort Monroe 12°, St. Augustine 10°, Fort Brooke 6°, and New Orleans 7°.5. There are no conspicuous years giving extremes which extend over the whole area.

The following table will give a sufficient number of these citations in tabular form to enable any one to recognize the principal features of this division of temperature distribution.

General Range of Mean Temperatures in the Spring Months.

	MARCH.							APRIL.					MAY.				
	Highest mean temp.	Lowest mean temp.	Above mean.	Below mean.	Range.	Date of maximum.	Date of minimum.	Highest mean temp.	Lowest mean temp.	Range.	Date of maximum.	Date of minimum.	Highest mean temp.	Lowest mean temp.	Range.	Date of maximum.	Date of minimum.
Fort Snelling.......	39.1	4.7	7.7	26.7	34.5	1842	1843	57.3	35.4	21.9	1839	1850	68.2	51.9	16.3	1829	1842
Fort Leavenworth ..	53.4	17.4	11.2	24.8	36.0	1842	1843	64.0	45.5	18.9	1839	1850	67.1	59.3	7.8	1833	1837
Jefferson Barracks ..	58.7	25.5	13.7	19.5	33.2	1842	1843	65.6	48.5	17.1	1845	1850	73.7	57.5	16.2	1829	1838
Fort Gibson........	62.2	39.5	10.0	12.6	22.7	1842	1843	68.7	55.3	13.6	1839	1850	74.2	62.3	11.9	1829	1838
Fort Jesup.........	68.5	41.6	9.1	17.8	26.9	1826	1843	71.6	62.3	9.3	1823	1829	77.9	68.5	9.4	1826	1838
New Orleans.......	71.3	52.0	7.2	12.1	19.3	1842	1842	74.4	67.1	7.3	1840	1846	78.4	68.6	9.8	1844	1838
Fort Brooke........	72.9	62.6	5.2	5.1	10.3	1826	1843	75.9	69.8	6.1	1840	1828	79.7	72.2	7.5	1826	1838
Key West..........	76.5	70.2	2.7	2.6	6.3	1854	1855	78.1	73.1	5.0	1843	1837	81.2	77.0	4.2	1843	1838
Foct Moultrie......	64.0	48.8	5.4	9.8	15.2	1828	1843	69.3	61.9	7.4	1826	1835	77.3	66.1	11.2	1828	1829
Fort Monroe........	57.2	37.1	8.9	11.2	20.1	1842	1843	62.8	51.0	11.8	1842	1850	72.2	61.6	10.6	1844	1849
Fort McHenry......	47.9	30.1	5.6	12.2	17.8	1842	1843	56.9	47.4	9.5	1848	1841	70.1	55.7	14.4	1833	1841
Fort Columbus	44.6	30.3	6.3	8.0	14.3	1842	1843	53.5	44.1	9.4	1844	1838	64.9	54.4	10.5	1826	1850
Alleghany Arsenal..	46.7	26.0	7.7	13.0	20.7	1842	1843	59.5	44.4	15.1	1844	1852	65.4	53.9	11.5	1842	1850
Watervliet Arsenal .	42.0	25.2	8.0	8.8	16.8	1842	1843	53.4	37.2	16.2	1844	1838	67.2	53.4	13.8	1826	1850
West Point.........	46.7	26.7	9.1	10.9	20.0	1842	1843	54.6	42.5	12.1	1827	1838	68.1	53.5	14.6	1826	1850
Fort Constantine....	39.5	26.5	5.8	7.2	13.0	1831	1843	47.6	38.7	8.9	1827	1838	59.2	48.2	11.0	1828	4837
Fort Sullivan.......	35.4	27.2	4.6	3.6	8.2	1831	1850	45.5	35.9	9.6	1844	1832	55.8	45.0	10.8	1831	1841
Ringgold Barracks..	74.1	65.5	3.5	5.1	8.6	1854	1855	77.7	76.2	1.5	1852	1855	83.8	76.9	6.9	1851	1850
Fort McIntosh......	74.2	65.3	5.2	3.7	8.9	1854	1855	78.2	74.0	4.2	1853	1850	84.5	76.4	8.1	1852	1850
San Diego..........	58.4	54.6	2.4	1.4	3.8	1855	1854	63.7	57.7	6.0	1855	1852	66.0	60.7	5.3	1855	1854
Benicia.............	56.4	50.3	3.4	2.7	6.1	1855	1854	60.1	56.1	4.0	1851	1843	61.8	56.4	5.4	1851	1854
Fort Steilacoom....	50.0	37.3	5.9	6.8	12.7	1855	1850	56.6	48.1	8.5	1850	1852	60.2	57.2	3.0	1850	1854
Fort Vancouver.....	47.7	40.2	4.8	2.7	7.5	1855	1852	51.5	46.5	5.0	1851	1852	57.6	54.4	3.2	1853	1851

From this table it will be seen that the range of variability is somewhat greater than the differences of successive months on the whole, though if the single extreme of March, 1843, were removed there would be great uniformity in these two measures of variation.

The measures of variability at any point of a large area in a series of years, may be derived from the mean of several stations, and we find fifteen posts on the Atlantic coast to give seven and a half degrees as the greatest change to which this district, as a whole, has been subjected. The same process gives for the interior, including the Lake district and the southwest, twenty-four stations, a mean of nine and two-tenths degrees of range. The area of greatest variability near the Upper Mississippi gives, from seven stations, fourteen and eight-tenths degrees.

In all forms of this comparison these measures are very large, applied as they are to the mean of a period of ninety days, and they indicate the great importance which the law of non-periodic variations of temperature has in this climate.

The *average variability,* derived from the mean of the departures in *both* directions, is also an important phase, particularly at these months. It is the change which may be expected in every year; and the following selection of three principal series will give, in the same connection, the departures for each month, as derived by comparison with the mean for the whole period, and the means and extremes of these departures:

Series and Mean of Variations of Temperature for the Spring Months, at three principal Posts, from 1820 to 1854.

Date.	FORT COLUMBUS.				FORT GIBSON.*				FORT SNELLING.			
	March.	April.	May.	Spring.	March.	April.	May.	Spring.	March.	April.	May.	Spring.
Mean Temps......	38.3	48.6	59.3	48.7	52.2	62.1	68.8	61.0	31.4	46.3	59.0	45.6
1820..............	......	......	......	......	......	......	......	......	— 5.0	+ 6.4	+1.7	+ 1.0
1821..............	......	......	......	......	......	......	......	......	— 2.4	— 5.7	—1.9	— 3.3
1822..............	+3.8	+3.7	+4.0	+3.9	......	......	......	......	+ 6.0	— 2.6	+2.3	+ 1.9
1823..............	—1.9	+1.0	—0.5	+0.4	+ 1.2	+4.1	+3.4	+3.0	— 1.6	+ 2.9	—2.0	— 0.2
1824..............	—0.8	+1.3	—1.3	—0.2	+ 4.5	—3.0	+2.8	+1.5	— 7.6	— 4.6	—2.7	— 5.2
1825..............	+5.4	+2.7	+3.2	+3.8	+ 5.2	—0.5	+4.0	+3.0	+ 4.9	+ 8.9	+2.0	+ 5.2
1826..............	—0.6	—5.4	+5.6	—0.1	+ 9.1	+2.8	+4.2	+5.4	— 1.8	— 8.6	+7.8	— 0.9
1827..............	+1.0	+3.4	+0.2	+1.6	+ 0.9	+2.1	—1.5	+0.5	+ 0.3	— 1.6	+4.0	+ 0.9
1828..............	+2.5	—3.4	+0.7	—0.0	+ 2.5	—3.0	+2.5	+0.7	+ 0.8	— 1.3	+1.3	+ 0.3
1829..............	—0.4	+3.6	+4.5	+2.6	— 3.9	—2.6	+5.3	—0.4	— 1.6	+ 1.7	+9.2	+ 3.1
1830..............	+2.8	+4.2	+1.0	+2.7	+ 5.2	+3.1	+1.1	+3.1	+ 2.6	+ 5.4	+0.8	+ 2.9
1831..............	+3.7	+1.3	+1.8	+2.4	+ 1.5	+2.0	—0.7	+0.6	+ 0.8	— 1.2	+2.2	+ 0.6
1832..............	+0.7	—0.4	—3.2	—0.9	+ 3.0	+2.1	+0.9	+2.0	+ 6.6	+ 7.6	—3.1	+ 3.8
1833..............	—2.4	+2.7	+1.4	+0.6	— 1.8	+1.8	+2.1	+0.7	+ 2.7	+ 5.4	+2.1	+ 3.4
1834..............	+1.4	—0.2	—2.8	—0.5	+ 0.3	+5.8	+3.5	+3.2	+ 0.9	+ 5.3	+2.8	+ 3.0
1835..............	—2.7	—2.8	—0.9	—2.1	— 1.0	—1.9	+2.8	—0.0	+ 1.3	— 2.3	+3.6	+ 0.9
1836..............	—6.0	—4.3	—1.3	—3.9	— 6.1	+3.3	+2.4	—0.1	—11.2	— 2.7	+5.3	— 2.8
1837..............	—3.3	—2.6	—4.0	—3.5	— 2.0	—6.4	—2.5	—3.6	— 6.9	— 5.0	—4.9	— 5.6
1838..............	—0.4	—4.5	—3.2	—2.7	+ 1.5	+3.6	—6.5	—0.5	+ 6.0	— 4.6	—5.9	— 1.5
1839..............	+0.4	+1.2	—1.6	0.0	+ 1.5	+6.8	+2.5	+3.7	— 1.8	+10.9	—1.8	+ 2.5
1840..............	+2.0	+2.8	—1.3	+1.2	+ 2.3	+1.4	+0.3	+1.3	+ 3.4	+ 1.2	+4.9	+ 3.2
1841..............	—0.9	—2.7	—2.8	—2.1	— 0.1	—0.3	—0.6	—0.3	+ 1.8	— 8.2	+0.8	— 1.9
1842..............	+6.3	+2.9	—0.9	+2.8	+10.0	+2.0	+1.3	+4.5	+ 7.7	+ 3.5	—7.1	+ 1.4
1843..............	—8.0	—1.3	—0.2	—3.1	—13.7	+0.3	—1.9	—4.8	—26.8	— 2.8	—6.7	—12.1
1844..............	+0.5	+4.9	+4.0	+3.1	— 1.8	+4.2	+1.1	+1.2	+ 1.5	+ 5.1	—3.9	+ 0.9
1845..............	+3.8	+2.2	+1.2	+2.4	— 1.7	+6.3	—1.8	+1.0	+ 3.1	+ 1.3	+1.9	+ 2.1
1846..............	+1.0	+1.7	+1.1	+1.3	+ 0.5	—0.3	+1.2	+0.5	+ 7.0	+ 0.0	+4.7	+ 3.9
1847..............	—2.3	+0.9	+0.2	—0.4	— 5.2	+3.9	—3.3	—1.5	+ 7.6	— 0.1	—6.3	— 4.6
1848..............	—2.2	+1.5	+2.1	+1.1	+ 0.9	—4.8	+1.9	—0.6	— 3.2	— 1.6	+1.2	— 1.2
1849..............	—0.4	—1.1	—4.3	—1.9	+ 3.6	—1.6	+0.1	+0.7	— 1.2	— 6.6	—4.2	— 3.6
1850..............	—2.1	—4.6	—4.9	—3.8	— 2.8	—6.8	—2.2	—3.9	— 7.4	—10.9	—3.1	— 7.8
1851..............	+1.5	+0.5	—1.1	+0.3	+ 1.9	—3.9	+3.4	+0.5	+ 7.9	+ 3.8	—1.0	+ 3.6
1852..............	—1.5	—4.9	+1.0	—1.8	+ 1.8	—3.3	+1.3	—0.1	— 4.6	— 3.3	—0.5	— 2.8
1853..............	+1.3	—0.5	+1.0	+0.6	— 2.8	+1.2	—4.0	—1.8	— 8.4	— 1.4	—4.0	— 4.6
1854..............	—2.1	—3.6	+0.6	—1.7	+ 4.4	—1.6	—1.2	+0.5	— 0.7	+ 2.2	—1.1	+ 0.2
Average departure from the mean...	2°.30	2°.59	2°.06	1°.80	3°.27	3°.02	2°.32	1°.72	4°.72	4°.20	3°.40	2°.94
Greatest departure.	8.0	5.4	5.6	3.9	13.7	6.8	6.5	5.4	26.8	10.9	9.2	12.1
Greatest range	14.3	10.3	10.5	7.8	23.7	13.6	11.8	10.2	34.9	21.8	16.3	17.3

* At Fort Jesup to 1827.

From this table it will be seen that the oscillations are almost constant, and that very few instances of small departure occur. The constant oscillation at Fort Snelling, for March, is 4°.7; at Fort Gibson, 3°.27; and at Fort Columbus, 2°.3. It diminishes through the other months, and for the whole period is scarcely two-thirds of the average of the single months. This indicates that the quantities extinguished in obtaining the mean of the three months, or the compensating quantities, constitute but a third of those considered, and that the variations, either in time or in degree, cover two-thirds of the period, or influence two-thirds of its measure of heat. This fact also demonstrates the truth of the suggestion elsewhere made, that the period we designate as *Spring* is, on the whole, too long for identification as a single quantity in the continental temperate regions of this hemisphere. The natural seasons are unequally divided in time, in truth, the winter and summer being longer, and the spring and autumn being shorter than ninety days.*

The remaining feature of this variability is the range of single observations through these months, and particularly through April and May. An analysis which would give the mean position of these single extremes for every year, and the absolute position of each, as selected from the whole series, would best express the more desirable form of the result. Thus it is important to know to what degree we may expect the temperature to fall, at any single observation, in each of the spring months, in the several districts, or the *mean* of the minima and maxima, and, also, to know what is the very highest and very lowest point possible to be attained in a series of years. The line of 32°, as a minimum for each month, is also quite necessary in a practical climatology.

The last point, or the districts in which the thermometer generally falls to near the freezing point once or more in the course of the month, may be readily defined without a tabular statement.

On the coast of California an examination of the minima for five years affords but two instances of the observation of 32° in March; while in the interior, and in Oregon, it may be anticipated several times in this month, though the lowest observed point at stations not much elevated is 19°. In April it is never reached in California at the sea level, or near it, and rarely in Oregon—at Puget's Sound three times in six years. In May there are no instances of its occurrence on the Pacific coast, except at stations elevated two thousand feet, or more.

At Fort Yuma, in the valley of the Colorado, the freezing point never is reached in spring.

At all the stations of New Mexico the temperature constantly falls below 32° in every month of spring, and at Fort Massachusetts and Fort Defiance it usually does so in June.

In Texas there is no frost or ice in the lower Rio Grande valley in these months, though it twice occurs at Fort Duncan, and the posts of that vicinity, in March. Perhaps a more extended series of years would give instances of severe frost in the principal portion of this valley in March, though there could be none in the following months. All the remaining portion of Texas has the occurrence of frosts in March regularly; in April, for the lower districts, very rarely, though they occur in half the years, or more, at the posts on the plateaux elevated one thousand to two thousand feet; but never in May at any point not mountainous.

In the principal area of the United States eastward, the lower portion of the peninsula of Florida, below Fort Brooke is the only portion not liable to frosts in March in extreme years. From the year

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* An admirable analysis of ten years' observations at Albion Mines, Nova Scotia, has been made by their author, Henry Poole, esq., by which it appears that the seasons there are naturally resolved into periods of 66 and 63 days for spring and autumn, and 120 and 116 days for winter and summer. The winter minimum temperature is January 20th, or thirty days after the solstice, and the summer maximum, July 22d, or thirty-one days after the solstice. The mean annual temperature is passed on May 1st and November 4th, forty-one and forty-four days after the equinoxes, respectively.

1822, when observations were either at that district or so near it as to decide the point, twelve years occur in which the thermometer fell to 32° or lower as far south as Fort King, and in two of these years at least, 1835 and 1843, it fell to the freezing point as far southward as Fort Brooke. In something more than half the years of the period now observed, the coast of the Gulf and of the Atlantic to Charleston experiences one or more instances of a temperature of 32° in this month.

In April the line of ice and frosts, or a temperatures at or near 32°,* recedes to Fort Monroe and Fort Gibson, and they are much more rare at either of these posts than at Florida stations in March. The depressions of temperature in which they occur are, however, frequently connected with falls of snow in the Atlantic States, and they usually affect the more elevated portions of all the States east of Alabama. In 1854 a heavy fall of snow occurred at the middle of the month in Virginia, and ice was formed in the vicinity of Charleston, South Carolina. Though frosts are quite frequent in this month at St. Louis, there are few instances of the formation of ice in the latitude of Fort Gibson; light hoar frosts occur in almost every year, however, and sometimes as far southward as Baton Rouge. These may occur at an air temperature of 43° in the ordinary positions of the thermometer.

In May the line of ice formation rises to St. Louis, Newport barracks, (Cincinnati,) Fort Mifflin, (Philadelphia,) and the posts of New York harbor, and at these points the temperature of 32° is not found in every year. Ice is formed during the first half of the month to this latitude in the interior districts, however, quite regularly, and hoar frosts occur in the remainder where the altitude is noticeable and at some distance from the coast. At the close of this month frosts disappear from all portions of the United States territory, except at the highest altitudes cultivated. In connection with the general range of temperature extremes the mean and absolute minimum temperatures for these months will be given.

The features of temperature distribution for these months are more important in every sense than those of other months, and a corresponding effort has been made to indicate clearly what they are. The comparison of the areas affected similarly or otherwise by the extremes of temperature occurring in the daily changes belongs more appropriately to the dynamics of the climate.

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* The temperatures used in this comparison for the spring months are lower than those taken in autumn, as will be seen by reference to the comparison for that season. One reason for this difference is, that air temperatures of 36° to 40° more rarely form ice or hoar frost in spring, and consequently have less effect on vegetation, and are less marked phenomena.

DISTRIBUTION OF TEMPERATURE FOR THE THREE MONTHS OF SUMMER.

The chief points of difference between the temperature distribution of the two continents of the northern hemisphere appear in the summer more decidedly than at any other season, and distinguish the isothermal illustration for this season by some extreme and apparently inexplicable curvatures. The difficulty of illustrating this distribution is increased by taking the actual superficial distribution of heat as the principle on which the chart is constructed, because of the great altitude of the plains and mountainous districts of the interior and western portions of the continent. These plains and plateaux are generally characterized by very high summer temperatures also, and in the detailed examination and comparison of these districts, these altitudes, and the particular problem of vertical distribution of heat will require some notice.

Generally the summer temperatures show a great change from those of the winter months, and the interior areas which are but little elevated above the sea exhibit almost or quite unparalleled measures of heat. These warmer portions exceed even the tropical districts of the continent in mean temperatures for these months, and they still more exceed those of the adjacent seas on the south. The mean surface temperature of the Gulf of Mexico, and of the coasts of all parts where the trade wind and sea breeze and the tropical rains prevent any accession from the radiation of land surfaces, appears to be very nearly at the mean of eighty degrees for the summer; and the West India islands generally, at positions with the usual land surface exposures, at a mean of eighty-one and a half and eighty-two degrees for the same months.* On the tropical coasts, where the rainy season is most perfectly developed in summer, and continues most uniformly, as on the coasts and islands of Granada and the isthmus of Panama, the mean is still lower, and often as low as 78° for July.

The districts distinguished by these extra-tropical temperatures in the United States embrace the dry interior of Florida, which has a mean of eighty-two degrees or more for the summer, and a large

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* The results of several series of observations in the West India islands correspond strikingly in the measures of mean temperature for the summer where the conditions of exposure are alike, as the following citations show :

		Degrees.
Havana	series of 8 years, from Kaemtz	81.3
Matanzas	do..3 years.....do	81.7
Jamaica	do..5 years.....do	81.3
St. Bartholomew	do..2 years.....do	81.3
Havana	do..3 years, from Ferrer	83.3
Kingston	do..5 years, from Lindsay	81.1

The average temperature of the surface waters of the Gulf, as recorded in Maury's charts, is one authority for deduction of the air temperature. The following records confirm the assumed distribution: At Tortola, W. I., 2 years, 80.6 degrees; at Barbadoes, 1 year, 78.5 degrees, from Dovè; at Caracas, one year, 74.4 degrees, from Kaemtz; at Vera Cruz, one year, 80.2 degrees, United States Army Meteorological Register, 1847. And generally the results at coast stations of the Gulf, as Cedar Keys, Fort Morgan, Camp Sabine, &c.

By many comparisons, Humboldt determines the mean temperature of the sea to be greater than that of the air above it, between the equator and 48° of north and south latitude, (Pers. Nar., vol. vii, p. 424.) This is doubtless more uniformly the case in the Atlantic than in the enclosed seas of the West Indies; and it is remarked by Humboldt, indeed, who gives as the mean annual temperature of the West Indian sea 79.6 degrees, with 82.3 degrees for the hottest season, (in February and March,) and 77 degrees for the coldest, which is in November and December. The summer of the north temperate zone would give little more than 80° for the water temperature, and it could not be placed above 80° for the air.—(*Ibid*, p. 410.)

area beginning near Savannah on the east, and extending through the whole low country of the Gulf States westward to the Rio Grande. In Texas this belt is much enlarged, and it borders on and embraces a large district in the valley of the lower Rio Grande, where the summer mean temperature exceeds eighty-five degrees. In the upper valley of the Rio Grande they again appear, notwithstanding the increased altitude of three thousand five hundred feet, on the Mexican side at the Bolson de Mapimi, and in the valley at Presidio del Norte, as at several points in the more narrow valley on the north side of the Rio Grande below and at El Paso. The valley of the Colorado river of California is the district of greatest excess, however, the summer mean here reaching *ninety* degrees. A considerable portion of the desert bordering this river on the west doubtless is quite the same as the military position at Fort Yuma, though no other part has been observed. West of the Sierra Nevada another district of extra-tropical temperatures exists, in the San Joaquin valley, represented by Fort Miller, at which post the mean summer temperature for three years is eighty-five and a half degrees.

The lower valley of the Colorado has few parallels in temperate latitudes in its measure of mean temperature, if, indeed, a parallel in the same latitudes may anywhere be found.[*] But this and the other last-mentioned extreme districts are still more remarkable for the single extremes observed in these months, and in the mean temperature at the extreme hour of 3 P. M. At Ringgold barracks, in the Rio Grande valley, the mean of the observations at 3 P. M. for the entire three summer months of 1850 is one hundred and one and two-tenths degrees, (101°.2,) and the single extremes reach one hundred and seven degrees for each month. Other stations in the same district give results so near to these that no considerable error of the instrument may be supposed to exist. In 1851 the measures for the same dates are but two or three degrees less in the means, and quite as great in the single readings at these posts, and in 1852 and 1853 they are very little different from, and on the whole as great as those of 1851. Still higher single readings are recorded in the Colorado and San Joaquin valleys of California, at Forts Yuma and Miller, the highest being 121° at Fort Miller, in July, 1853, and 116° at Fort Yuma, in June of the same year. The highest monthly mean for any hour is that at Fort Miller, for June, 1852, of 108°.4, at 3 P. M., with a single maximum reading of 116°. There are frequent instances of a mean temperature for a summer month exceeding one hundred degrees at 3 P. M., one of which occurred at Fort Gibson in August, 1834, and many within the five years of observation in Texas, New Mexico, and California.

The concurrence of so many records establishes the position that the summer temperatures of several districts in the temperate latitudes of this continent largely exceed those measures in its humid tropical climates, at least, if they are not quite unparalleled at any point.[†] As these appear

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[*] In the collection of temperature tables by Dovĕ some stations in India and Persia are given with very high temperatures, yet the periods are short, and some doubt rests on the adaptation of the hours to give the true mean. At Bagdad, Bassora, and Abusherehr, Persia, observations are recorded giving 92° and 93° for the mean of summer, but no mention is made of the hours of observation. At many points in India the months of May and June exhibit excessive heats, but the summer is usually a rainy season, and of a very large number of stations given by Dovĕ but one, Pondicherry, exceeds 90° for the summer mean. This is at 11° 56′ north latitude, its summer mean for one year 93°.7. Ambala, near Delhi, latitude 30° 25′, has a mean of 100° for May and 96° for June; Cawnpore, latitude 26° 30′, 95°.5 for May, &c. These are British observations, and their great number for India probably represents all districts where extreme temperatures exist.

[†] In a table of maximum temperatures for the globe, Kaemtz and Martins give 117°.3 at Esnĕ, Egypt, as observed by Burckhardt, 113°.5 at Bassora, 112°.5 at Pondicherry, and 109°.6 at Philœ, Egypt. The highest at European cities are 101° at Catania, 103° at Palermo, 102° at Naples, and 101° at Rome and Paris. Humboldt gives as the maximum observed at Cumana, South America, "on days considered excessively hot," 90°.5, and as the highest in Havana in 1801, 90°.

An instance of desert temperatures in the Oasis of Mourzouk, Sahara, is referred to by Humboldt, where Captain Lyon experienced "for whole months the thermometer of Reaumur between 38° and 43°" (117°.5 to 128°.7 Fahrenheit.)

At Vera Cruz the greatest heats do not exceed 95°. In the Red Sea the thermometer at noon is at 111°.2, at night 94°. At Benares, India, the heat in summer attains 111°.—(Humboldt's Pers. Nar., vol. vii.) In Dovĕ's Isothermal Chart for July, a portion at several points of districts generally similar, and in successive years at the same points, no considerable errors of the instruments may be apprehended, and none can exist which vitiate comparison with the records of other climates generally. The instruments were, indeed, all carefully constructed and carefully compared.

In this general view of the temperature distribution, there are one or two anomalous instances of refrigeration of the summer temperature which render the explanation of the facts of great interior heat more difficult than they would be otherwise. The greatest diminution of the summer heat is on the coast of the Pacific, and the contrast of that district with those in which the great extremes of heat have been recorded is most extraordinary. Fort Miller in the San Joaquin valley of California is less than one hundred and fifty miles due eastward from the coast of the Pacific at Monterey, where the mean summer temperature falls off to 57°. For the month of June, 1852, the mean of 108°.4 at 3 P. M., at Fort Miller, had a corresponding mean at Monterey of 63°.2, and a single maximum there of 70°—a difference in the means of forty-five, and in the extremes of forty-six degrees. The difference in the complete monthly means was thirty degrees.

The measures of difference and contrast here given, are also in a great degree characteristic of large districts; as the cold of the coast of the Pacific in summer extends over twenty degrees of latitude, or from the fiftieth to the thirtieth parallel, while the extremes of summer heat are common to all the valleys and basins of the western portion of the continent, where a single range of mountains intervenes between them and the Pacific coast. The summer isothermal of 57° will be seen to extend along the coast from Sitka, in Russian America, to Monterey, giving an almost absolutely equal temperature for this extensive line of fifteen hundred miles of latitude, and near two thousand miles of coast. A portion of the coast of Oregon has temperatures noticably higher, for the brief period of the record there, which may, perhaps, prove the position of the cold line to be a little distance off that coast at sea.

The Atlantic coast furnishes another instance of depression of temperature, from causes not common to all changes of seasons on the ocean coasts. The sea winds and mists are here noticably colder than the average temperature of the sea itself, at any considerable distance, and exposures open to these have a temperature perceptibly reduced as far southward as Florida. As the positions of the isothermals of five degrees of difference are widely separated in summer, and as each, therefore, approximately represents a large district, in which it may change position considerably for slight positive differences, the curvature for the lines, as drawn, gives a somewhat undue impression of these changes, and of the cooling effects of the coast positions. The lines, also, double on themselves abruptly to follow the warm atmosphere of the Gulf stream. The cause of this refrigeration is found in the cold masses of water present on the northern parts of the coast, or returning in currents next the Gulf stream, and beneath it. The existence of this current beneath is fully shown by the Coast Survey observations, and the fact, first noticed by Humboldt,* that deep lying masses of cold water may be pressed against shelving coasts by great ocean currents, and thus be brought to the surface, cooling the immediate coast more than any other point in its vicinity, appears to go far towards solving the problem of the presence of these cold waters, where no surface current is perceptible. For most parts of the Atlantic coast these causes are sufficient only to affect the winds from the

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of the African Desert—Nubia and Arabia—is embraced by an isothermal of 90°.5. The mean of this month for three years at Fort Yuma is 92°.27, and for two successive years it exceeds 94°. It cannot be of less mean temperature, therefore, though but a point in comparison to the great Nubian and Arabian Desert, for the single month of July, or the mean of the three months of summer.

* Personal Narrative, vol. vii, p. 389.

northeast, which is the direction covering the largest water surface of this character, and the summer temperatures are reduced by the effect of these alternations, without the production of a decided single extreme, and without the uniformity which characterizes the refrigerating winds of the Pacific. The phenomenon is sufficiently well known, yet it is not so decidedly associated as it should be with these cold, deep sea currents, and the masses of cool water of the coasts.[*] It is difficult to illustrate this feature by citation of measures of temperature, as the depressions appear in the form of two or three days of generally low temperature, without reaching a single minimum so low as might be attained at an interior station from the effect of radiation alone.

The Gulf Stream is somewhat above the mean temperatures of the east coast of the continent in the same latitudes, even in summer, and the isothermals would curve northward rather than southward in their extension at sea, if no influences other than that stream or the undisturbed sea were encountered. There is, however, no point of the coast at which the temperatures of summer are greater for the existence of the Gulf stream, as the continental influences everywhere predominate under the prevalence and controling character of the westerly winds. The same atmospheric circulation carries the heated waters and their accompanying local atmosphere to the European coasts; yet there the temperature becomes reduced by diffusion over the sea, and the high proportion of moisture cools the summer climates rather than otherwise. This is shown by comparing the high temperatures of our dry western interior with those of western Europe.

The cold climates of the Pacific coast in summer constitute a general phenomenon of temperature distribution more difficult of explanation than any other, as the degree of refrigeration is so very great, and the contrast with interior districts so extreme over many degrees of latitude. The striking uniformity in the measures of mean temperature here, which has been alluded to as characterizing nearly all the observed points, is conclusive evidence of the existence of some general and powerful agency other than the immediate one of cold day winds. The analogies of the coasts of South America, Africa, and the north Atlantic would indicate at once a reference to great polar currents, and to the transfer of large masses of cold waters from the northern parts of the Pacific, but the ordinary sea observations have hitherto failed to discover any regular or marked currents here. Northward and westward from San Francisco the surface currents appear as frequently from one point as another on Maury's charts, though the existence of a general movement from the northwest is recognized. There is apparently a deep-sea current from that direction of great magnitude and volume, which appears only by the lifting of its waters on approaching the coast, and in the general refrigeration of the waters of the whole area, with the consequent effect on the sea-winds and on the climate of the land. The water temperatures noted in the summer months are less than those of winter, and their mean is nearly 57°, or that of the sea winds and of the summer on the coast. The body of water so affected is shown by Maury's charts to extend north-westwardly toward the peninsula of Alaska, and to be strikingly uniform in its characteristics of low temperature, absence of surface-currents, and continuous northwest winds, so far as observed.[†] This great mass of cold waters, and its attendant cold surface atmosphere, develops a strong sea wind towards the greatly heated and rarified interior valleys and plains; and where these contrasts of temperature are greatest, the maximum effect is produced, as at San Francisco and Monterey. It is not strange, therefore, that the immediate coast is cooled to the temperature of the air and water of so large a portion of the ocean.

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[*] Humboldt remarks (ibid. p. 388,) that in July, 1804, the thermometer, off the Bank of Newfoundland, recorded but forty-seven to fifty-four degrees, while in the Gulf stream it was at seventy degrees, and in the open sea beyond sixty-six and a half degrees; the air temperature on the banks, at noon, being fifty-eight to sixty degrees. He also notices the refrigeration of land climates near these masses, necesarily resulting from their presence.

[†] The temperatures of the cold currents of the Pacific coast of South America are very nearly the same as those observed here, even when intruded into the tropical seas of Peru. At Truxillo and Callao they were observed at 59°.5 and 60° by Humboldt, when the sea temperature beyond the current was 81°. Holmfeldt again observed the temperature of 60°.5, but there appears to be less parallel in regard to the differences of the seasons, and in the extreme effect on the climate of the land. It is remarked by Dovē, also, in his

As the solution of this great depression of coast temperatures is evidently found in the temperature of the Pacific ocean, it may serve to confirm the accuracy of the observations there to give the mean of such observations as have been recorded at sea. Taking the observations in Maury's Wind and Current charts for these portions of the Pacific, in means for areas of five degrees of latitude and longitude, we find the areas westward of San Francisco to give 56°.5, 62°.3, 64°.4, and 68°, successively. The areas next southward, or between 30° and 35° of latitude, decrease in temperature westward from longitude 120°, by the successive numbers of 60°.5, 63°.3, 65°.7, and 66°.7, to the meridian of 140°. South of the parallel of 30° there are no summer observations on the coast. In the latitude of the Sandwich Islands (20° to 25°) the temperatures increase from 72°, at the meridian of 120°, to 77° at 150° in the vicinity of those islands.

The contrasts which induce these violent sea winds exist only in the summer months, including May and September, as at other seasons the ocean is quite as warm and the land colder, and, whatever the degree of aridity, the sudden and extreme rarefactions do not occur in the interior. As this unusual circulation ceases the temperature rises, and the spring and autumn are both warmer than the summer, on the immediate coast, over a space embracing several degrees of latitude.

It may appear inexplicable that the northern districts of this coast, to fifty-seven degrees north latitude, should be equal, if not higher in temperature than that at San Francisco; but the refrigerating current appears to originate westward of Alaska, and to pass nearly due southeast from that point toward the continent in the latitude of Monterey; not entering the indentations of the Russian and British American coasts, probably, in any degree.* There may, also, be warm waters flowing over these from the central areas of the Pacific, from a division of the great warm currents of the Asiatic coast, and producing the general effect on the Pacific climates which the Gulf stream produces on those of Europe. Such is clearly the case in winter, when those movements outrank those from the Polar seas and give high temperatures for the whole mass of the Pacific, even where the cold waters are most marked in summer.

These comparisons are indispensable to show the reliability of the temperature measures given at Pacific stations, and that this anomalous arrangement of the isothermals is a correct representation. This arrangement is also independent of all considerations of altitude, as the construction of sea level isothermals for the interior would but increase the contrasts, and the coast stations are all at sea level.

In a more detailed explanation of the interior temperature distribution for the summer a comparison of the successive districts may be made, commencing with those of the east.

In the New England States there are several points where the climates are principally marine.

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essay on the isothermal lines, that the South American current is a deep mass, the soundings of the French exploration ship Venus giving a depth for it of 5480 feet. 'It is a considerable section of the Polar sea marching majestically from the south to the north.' The analogy is very clear in the north Pacific.

*Richardson, (Arctic Expedition, Climatology,) in referring to the causes of high temperatures on the western coast of British America, says: "The course of the ocean currents, and the interposition of the peninsula of Alaska, and its prolongation in the Aleutian chain of islands, protect the west coast of America from the masses of drift ice which, in the same latitudes, encumber and chill the Labrador coast for most of the year."

Forts Sullivan, Independence, and Adams are particularly so, and we find at these a perceptible falling off from the high temperatures of other posts, especially in the maxima and in the range of summer temperature. Fort Sullivan has the same temperatures as the posts on the upper part of the St. John's river, at the extreme northern point of Maine, and two hundred miles from the coast. The altitude of this interior district is not very great, and the proximity of the St. Lawrence valley favors the development of the comparatively warm summer which is found along the line from the mouth of the St. John's river to Quebec. The interior rises so much southward that no line of warmer temperatures appears until the plains near Montreal are reached, the vicinity of Lake Champlain in Vermont, the valley of the Connecticut river, and the southwest point of Maine, at Portland and Fort Preble. The line of 65° which passes here is sometimes found for several successive years in the valley of the St. John's, which has a general mean of 63°. The isothermal of 65° may also be extended in the low country of Maine as far as Bangor, returning along the coast nearly to Fort Constitution, (Portsmouth,) New Hampshire. Next a portion of southern Maine, New Hampshire, and Vermont, the valley of Lake Champlain, and the vicinity of Montreal may be correctly represented by the mean of 67°.5; and the general features, apart from the mean, are quite alike for these districts—all being interior climates, with a large range of single extremes and of extremes in consecutive years. This measure is common to still more extensive districts, as it embraces nearly all of Massachusetts and of New York, with northern Pennsylvania, Michigan, and Wisconsin. The greater elevations of southern New England, New York, and northern Pennsylvania make up for the difference of latitude, and as the general average of surface temperatures is necessarily considered here the districts enumerated may be quite identified. In all this area the deep river valleys and particularly arid or sandy localities are excepted, and these may be assigned a mean temperature of 70° for the summer. Westward of Wisconsin this very favorable measure of temperature only appears in mountainous districts, and under very different circumstances. It there, however, distinguishes the best portions of Oregon and California.

Between the mean of 70°, which appears in many localities of the last general district, and that of 75°, there is a very large area embraced, the extreme range east of the plains being from latitude thirty-four degrees in northern Georgia to Fort Snelling, latitude forty-five degrees. In the general phenomena of temperature distribution this district of the central States is quite uniform. Its single extremes of temperature are less than in the next cooler district, yet the range of the mean temperature is quite as great, or even greater. Thus the line of 75° varies its position very greatly in extreme years, sometimes reaching nearly to Fort Howard, in Wisconsin, and again falling off to the northern line of Louisiana. On the Atlantic coast it ranges from New York city to central North Carolina, less than in the Mississippi valley, but still greater than the range of the mean of 65°. This last has its greatest range on a line of contrasted altitudes from central Pennsylvania to Quebec, but in other positions and at like altitudes its range is but about half that of the line of 75°.

There is great identity of the temperatures of this large area embraced by the isothermals of 70° and 75° east of the plains, including Iowa, Illinois, Indiana, Ohio, Kentucky, Upper Tennessee, Virginia, Maryland, Delaware, Lower Pennsylvania, and New Jersey;—excepting from these some points of coast exposure and of the mountainous districts, the summer temperatures are more nearly uniform than almost any continental area of like magnitude. The southern border of this district has not the exceptions of greater temperature which belong to the next northern class, as the differences of local position cause much less difference in the mean temperatures. The lines curve only about the altitudes of the Alleghanies, and but for these would have a very uniform direction a little north of west from the Atlantic coast to the Mississippi valley. The line of 75° is, however, as far north on the plains of New Jersey as at the Mississippi river.

The continuation of these lines over the plains and the Pacific districts is under peculiar circumstances, quite different from those prevailing at the east. Most of the area of the great plains is embraced by them, from the Llano Estacado of Texas to the most northern position on the Missouri river. West of 100° longitude the plains slope northward rather than otherwise, or the successive areas are more dry and desert-like on any right line east of the Rocky mountains, as the south fork of the Platte is more arid than points further south on the same line. So from the sources of the Canadian and the Raton mountains northward; and though at Fort Laramie and north of it there are elevations which interrupt the general slope, yet north of these again the plain of the Missouri river falls off more than two thousand feet on a line due north from Fort Laramie. Fort Benton, at five degrees of longitude further west and five and a half degrees of latitude further north, is also 1856 feet lower. It is not surprising, therefore, that as the plains are in every part particularly liable to the accumulation of heat in summer the mean temperature of the northern areas should be comparatively high, and should somewhat exceed that of the lake district and the Atlantic coast. The lines of 70° and 75° are, however, very remarkably separated from that of 80°, and thrown quite beyond what might have been anticipated from the altitude of the plains and from the climates of other parts of the continent. It is well established that the line of 75° reaches to Fort Pierre, on the Missouri, returning, over twelve and a half degrees of latitude, to the upper plains of Texas.

Between the lines of 75° and 80° of mean summer temperature is another large area in the eastern part of the United States, and also on the plains. It most resembles the district between the isothermals of 70° and 75°, and on the plains it is distinguished by the very small differences of its measures from 80° over most of the district—the isothermal of 79° embracing the plains of the Arkansas for a large area.

The line of 80° is more uniform, and it embraces the whole lower States in a concentric curvature with higher temperatures within, and a diminution in all directions toward the Atlantic, the Gulf of Mexico, and the Mexican interior. Most of the area embraced is tropical in many of its features, and but for the winter extremes of low temperature it would rank fully as such. Except some portions near the southern extension of the Alleghanies and in western Texas, it defines the cane district in its possible limits, and those in which it is now occasionally cultivated. As previously alluded to in the general notices of temperature distribution for the summer, the Atlantic coast is colder, notwithstanding the near position of the Gulf stream, and the line therefore curves down the coast directly from Fort Johnston, N. C., to New Smyrna, Florida, returning up the western coast to Cedar Keys. At Key West there are evidently local circumstances which augment the temperature beyond that of the channel between this point and Cuba—the sand surface of the island, small as it is, being probably sufficient to increase the temperatures one or two degrees. The record by officers of the customs for several years is slightly above the military record—the summer mean of those by W. A. Whitehead, esq., for six years previous to 1836 being 82°.3.

West of Cedar Keys the line of 80° touches only at particularly exposed points, but the evidences are clear that it is continued in the direction of Vera Cruz. On the north it comes in at the foot of the principal plateau of western Texas, and embracing some portion of the dry plains near the Red river, it returns nearly to the recognized cane districts of Louisiana.

Within this is a district of 82° mean temperature, embracing a large share of Texas, much of Louisiana, and a small portion of the plains from Mobile to Savannah. Only the southern and tropical portion of the peninsula of Florida attains this temperature, and it does not appear at the interior posts of the neck of the peninsula between Fort Marion and Cedar Keys. The difference between this temperature and that of 80° does not appear to be significant of anything beyond a surface facilitating local accumulation of heat, except in the vicinity of New Orleans and in South Florida, where tropical features are more fully developed in summer than elsewhere.

In southwestern Texas the extreme measure of 85° appears, which belongs to the exceptional climates of the western interior, and in this case is an accumulation from local radiation in a somewhat confined and sandy valley. But for the constant winds of the Rio Grande valley, this accumulation would be even more extreme. When these winds change from their almost constant point of southeast to true south, they bring a heated atmosphere like the desert winds of the eastern continent, and the conditions of exposure and locality are desert-like rather than tropical in this lower valley.

In explanation of the peculiarities appearing in the illustration of the great areas beyond the plains and to the Pacific, we may begin with the supposed extension of the isothermal line of 85° from the lower valley of the Rio Grande. Though the illustration of the continent generally does not enter into the present purpose, it is necessary to consider the areas next to our own territory to arrive at a satisfactory explanation of the facts recorded in the registers. The valleys entering the Rio Grande from the south are unimportant except that in Chihuahua, and this only, with the Bolson de Mapimi, a dry and heated basin 3800 feet above the sea, probably reproduces the high temperatures of the lower valley. At El Paso which is more elevated and further north, the summer mean is at 82°. Beyond the mountains on the Gila and Colorado rivers there are also no mean temperatures observed, and the positions can only be defined approximately by reference to Fort Yuma and the Great Salt Lake. The mean of 85° must necessarily reach to thirty-seven and a half degrees north latitude there, and it reappears in the valley of San Joaquin at about the same point as is shown by the record at Fort Miller. The line is bifurcated in that direction, and from the point of separation it extends down the coast within the first range of mountains and west of the Gulf of California. There are no records below San Diego, yet the known characteristics of the coast climate render it certain that neither this nor the isothermal of 80° reaches the Pacific shore at any point of the peninsula of California.

Within this line of 85°, at Fort Yuma, the maximum mean temperature of 90° for the summer is attained. The exposure here favors the most extreme accumulation of heat, as sands and arid plains surround the post for great distances, and the principal winds bring only sand storms at this season. Little rain falls in summer, and the air is distinguished by the intense aridity belonging to districts between the oscillations of tropical and temperate rains—the summer rains of Mexico approaching near this point on the south without reaching it, and the winter rainy season of the coast also near it, but never present. Its position is not wholly unlike that of the northern extremity of the Red Sea.

The isothermal of 80° is continued up the valley of the Rio Grande to Doña Ana, New Mexico, and it doubtless belongs to the desert portion called the *Jornada del Muerto*, below Fort Craig. Beyond this no records define it except at Salt Lake, where the summer mean is but little below 80°. Returning from the western part of the Great Basin, it is reproduced in the valleys of California at Sacramento, and from the southern point of the San Joaquin valley crosses within the coast mountains and remains east of these at least to the lower half of the peninsula of California. The temperature of most parts of the Great Basin can only be taken approximately, but from the two positions of Salt

Lake and Fort Yuma, and from the journals of survey parties the summer temperatures are shown to be at least as great as those assigned in the position of these lines.

The line of 75° returns, as before remarked, a great distance from its most northern point on the plains to the Llano Estacado, and then recurves to Albuquerque, to return again two and a half degrees of latitude for the lofty plateaux of the Sierra Madre. It then surrounds the eastern and northern rim of the Great Basin, traverses the California valleys on a right line south, and is the highest isothermal appearing west of the coast range, near Los Angelos and San Luis Rey. It may be doubted whether a number of points sufficient to define the line here could be found, as none but valleys of the warmest exposure go beyond 72°, on this western side of the mountains.

The plateau of the Rocky mountains increases in altitude southward so much as to cause the isothermals from 60° to 70° to run parallel to it from Fort Benton, on the Missouri, to Santa Fé, being as near each other at 47° 30′ of latitude as at 35°. The upper valleys of the Missouri and Columbia rivers are scarcely two thousand five hundred feet above the sea, and much of the great plain of the Columbia is elevated less than one thousand feet. Both plains are not only arid in their surface, but nearly destitute of summer rains, and their mean temperatures for this season are comparatively high. The isothermals of 70° and 65° are but little separated at these points, the first going to the 47th, and the last nearly to the 49th parallel. From the plains of the Columbia they run nearly south to San Diego; the isothermal of 65° following the Willamette valley from Fort Vancouver, and that of 70° the valley of Fall river, east of the Cascade range, from Fort Dalles; both remaining within the coast range of California as far south as Monterey, from which point, though they are then inland at the western foot of this range, they go southward near to Los Angeles and San Diego.

The isothermals of 60° and 62° run nearly north and south on the Rocky mountain plateau to Fort Massachusetts, and on the Pacific coast below the 35th parallel. The valley of Frazer's river, north of Puget's Sound, at least extends the line of 62° some distance beyond the island of Vancouver, and the temperature of that island is known to be above that of Sitka, which has a summer mean of 57° and defines the position of the lowest isothermal of the chart to that remote point of the coast.

On the Rocky mountain plateau the observed mean at Fort Massachusetts is 61°, and that at Fort Defiance, much further south, 67°. The altitude of the first is 8400 feet nearly, and that of the upper valley of San Luis quite the same. The general altitude of the vicinity is much greater, and it may be assigned, at the Parks, at near 10,000 feet. At the South Pass the average of large areas would be about 8000 feet, which is diminished, in an average, farther north to the 49th parallel. It is, perhaps, inaccurate to regard this as a plateau north of the 44th parallel, but it may well be regarded as such south of that line for all purposes of thermal illustration, notwithstanding the great altitudes and irregularities of its surface. In New Mexico, cultivated districts crown the principal ranges, as at Zuñi, on the west, at 6500 feet; Las Vegas, Anton-Chico, and other districts on the east, at 6000 to 6800 feet; the Sangre de Christo and San Luis valleys at 8000 feet; Taos and Santa Fé at 8000 feet; and the Parks, which afford abundant pasturage, at 9000 to 10000. For this purpose these districts must necessarily be regarded as plateaux, above which the sharp mountain ranges are lifted, and where the summer temperatures, particularly, may be considered generally, except for these particular peaks or ranges.

A brief comparison with the summer isothermals of the temperate latitudes of the eastern continent may here be given. The best illustration of that distribution is in Dovè's isothermals for the month of July, and this single month does not differ so largely from the mean of the three there as it would here.

The highest isothermal for July which touches Europe is the line of 77°, which crosses the south-east coast of Spain, the islands of Sardinia, Sicily, and Candia. A very large area east of the Plains, and most of the country south of thirty-seven and a half degrees of latitude, is warmer here, therefore, than any part of the continent of Europe. The isothermal of 72°.5 embraces Spain, southern France, Italy, part of Austria, and Turkey. The difference of July from the summer mean would place the corresponding line of division nearly on the American isothermal of 70°, and a glance will show that all the area east of the Rocky mountains and south of Fort Snelling, the points of the Great Lakes and New York city, attains to this temperature. The line of 68°, for July, runs a little north of east from Rochelle, France, nearly in a straight line through Germany and southern Russia; that of 63°.5 skirts the southern coast of England, and runs in the same direction from London through northern Germany and central Russia. Central Europe corresponds nearly to the American lake district, and the wheat climates of England and the Baltic to the northern portion of Maine, Quebec, and Lake Superior, in summer temperature. The lines of 59° and 54.5° are more irregular in Europe, curving northward from the west of England to the White sea, and the lowest mean touching the north of Europe is 45°.5. Through Asia, most of these lines run due eastward, those north of 63°.5 only diverging, that of 59° quite largely, and spreading fan-like over the great areas of northern Asia. On the east coast, however, they all recurve southward quite abruptly.

The temperate latitudes of northern Africa and the south of Asia present one or two points of comparison worthy of notice. The Gulf States and Lower California are in the latitude of the northern States of Africa, Egypt, Syria, and Persia, and the isothermal of 81°.5 for July, which corresponds very nearly to that of 80° for the summer, very accurately defines this district of the eastern continent, except at the western coast of Africa. The line of 86° for July is traced at 25° north latitude in Africa, and 26° in Asia. These would be quite the same as the temperatures of the lower Rio Grande, and higher than those of Florida.

DISTRIBUTION OF TEMPERATURE FOR THE AUTUMN.

It has been mentioned, in connection with the temperature distribution for the spring, that both that season and the autumn were scarcely capable of identification, as distinct periods, in regard to temperature, which might be separated as such and compared for the various districts as definitely as the extreme seasons of winter and summer. In the most northern districts the autumn proper is shorter than elsewhere, and if defined by the period from the commencement of the decline of vegetation to its complete extinction it would be scarcely so much as sixty days. All the area north of 40° of latitude and east of the Rocky mountains shares these abrupt transitions, and north of the forty-second parallel November belongs more correctly to the winter months. At the 45th parallel the average mean temperature of this month is about 32°, and its contrast with the temperature of September is very great. As the position of each month separately, and of the single limiting temperatures in regard to vegetation, is more important than that of the period of autumn as a whole, these features of the temperature distribution will be particularly referred to.

The chart embraces an isothermal of 32° for November, which is the only month in which that line cuts any district represented, and a thermal line is drawn to define the mean position of single minimum temperatures of 36° to 40°, or of the first destructive frosts of each month, in addition to those representing the mean temperatures of the entire period of three months. The first of these lines, the mean of 32°, occurs only in November, and it cuts off a less area as belonging to the winter proper than the same line in spring for the month of March. The difference is greatest in the lake district and on the Atlantic coast, where the mass of surrounding waters retains its heat and modifies the temperature through a long period of continued low temperature inland, and where also the spring presents masses of ice retarding the summer advance of heat. Fort Brady and Fort Snelling illustrate these opposite results. At Fort Snelling each of the months named is near 31°.5, while March at Fort Brady is 6°.4 colder, and November 1° warmer than at the first post. The whole district influenced by the lakes, and all the Atlantic coast above Fort Monroe, exhibit the same results, the difference between the two months being five to seven degrees, while at all the interior posts they are nearly equal, and south and west of St. Louis March has the highest temperature by from one to three degrees. It is a noticeable feature of the entire temperature distribution that the decline in autumn occurs sooner at the southwest than elsewhere, and that the minimum is often in December, the spring returning as much earlier, and belonging to March more decidedly than to any other month.

The thermal line of 32° for November also shows that the temperature conditions for any entire line of latitude across the continent are more nearly equalized at that time than in any other case, as in the lake district and on the Atlantic coast this line bends northward to 47° or more of latitude, and its position in its extension westward is but little north of this parallel. Between the Mississippi and Missouri rivers it curves furthest south, showing that the plains grow cold more abruptly than the districts eastward.

In October no post gives a mean temperature approaching this point; the lowest, at Forts Ripley, Wilkins, and Massachusetts, (New Mexico,) being forty-four and forty-three degrees. The degree of heat for this month falls off as much generally from that of September as that of November does from this, but the universally high temperature of September leaves a measure still quite high. The following measures of the decline of temperature in the successive months of autumn may be advantageously compared with the monthly advance in spring, as given in previous tables. December is included, in order to embrace the entire period of declining temperature to the winter, and nearly to the yearly minimum at all points.

Stations.	Mean of Aug.	Aug. to Sept.	Sept. to Oct.	Oct. to Nov.	Nov. to Dec.
Hancock Barracks	64.5	9.3	11.9	12.5	12.7
Fort Constitution	65.1	6.1	9.5	10.7	10.1
West Point	71.8	7.5	11.3	10.8	10.3
Fort Niagara	69.7	8.0	11.3	10.9	9.9
Alleghany Arsenal	71.2	7.7	12.6	11.1	8.5
Fort Monroe	77.2	5.2	10.4	10.2	8.3
Fort Brooke	80.4	1.1	5.3	7.1	5.0
New Orleans (Ft. Pike)	82.9	3.8	8.6	7.7	7.0
Fort Jesup	81.3	5.2	10.2	9.3	7.0
Fort Washita	80.8	6.0	11.6	11.6	9.2
Fort Gibson	80.2	6.7	12.0	12.4	9.1
St. Louis	76.1	6.6	15.3	11.7	10.6
Detroit	67.4	7.4	12.4	9.4	11.4
Fort Mackinac	64.0	9.0	9.9	12.8	11.2
Fort Snelling	70.0	11.2	11.7	15.5	14.7
Council Bluffs	75.4	10.2	13.6	15.6	15.8
Fort Kearney	72.3	7.9	14.9	15.5	12.2
Fort Graham	84.7	7.3	10.0	12.2	9.0
San Antonio	83.9	4.2	7.6	10.3	10.9
Fort Brown	83.8	3.2	6.2	5.3	6.5
Fort Fillmore	79.6	2.4	12.4	13.2	4.8
Albuquerque	75.4	6.0	10.9	14.3	8.1
Santa Fé	70.0	8.1	10.7	12.7	8.3
Fort Defiance	66.9	10.8	9.9	10.6	6.4
San Diego	73.6	2.8	5.3	8.6	5.2
San Francisco	57.2	+1.0	0.3	3.6	3.1
Fort Miller	83.0	7.0	8.5	12.0	7.4
Fort Vancouver	65.5	4.7	7.5	6.8	10.0

These results show that the diminution of heat for these months is generally more uniform than would have appeared probable when the diversity of the positive measures is considered. The falling off to September is always least, that to December next, and those to October and November are much the largest quantities, and nearly equal. September is a summer month, except at the colder posts, and on the coast of California it is often the warmest of the year; at San Francisco one degree warmer than August. The area between the Rocky Mountains and the Mississippi grows cold most abruptly, both relatively and positively.

The temperatures of the Pacific coast are always anomalous, and never more strikingly so than in these comparisons of points in the curves of successive months. September is seen to be warmer than August, and as this last month is warmer than July, the whole line from July to October is ascending, and November falls but little below the July mean. The same results are found at Monterey, and they appear to belong to the immediate coast line for several degrees of latitude. The mutual relations of the months are similar to those of tropical and equatorial districts, where the rainy season reduces the temperature of the months of summer, and the clear atmosphere of other months permits the highest temperatures of the year.

The general characteristics of the curve of temperatures through successive months for the various districts falls more appropriately to the examination of the annual distribution of temperature, and a farther reference to the peculiarities of the curve of declining temperature will be made in that connection.

The lines marking the limit of mean single occurrence of frosts closing vegetation are most difficult to place, and they can only be regarded as approximations. The greatest distance southward to which cold extremes of a certain degree may fall in the most severe season, is a point almost equally desirable, yet the non-periodic extremes are so variable in themselves, and they may become so great in certain cases, that it is hardly possible to present a valuable result in regard to them. A temperature of 36° to 40° at sunrise is usually attended with frost destructive to vegetation, as the position of the thermometer is always such as to represent less than the actual refrigeration at the open surface. Taking the point of 40° as that which would give a frost in districts slightly more elevated and exposed than the posts themselves, as the adjacent country usually is, and the comparisons for the month of September through the last twelve years give the following results.

In 1843, 1844, and 1845, the posts of the south coast of New England, New York harbor, one or two in the valley of Lake Ontario, and all south of Pennsylvania, gave no temperatures so low as 40°, while those north of this line were at 32 to 39 degrees in the minimum for each year. Westward, St. Louis and Fort Leavenworth were at this limit of 40°, except in 1844, when the temperature of 36° extended as far southward at Forts Towson and Jesup.

In 1846 there were no points, in the observed districts of the United States, where the thermometer fell to 40°, the month being unusually warm.

In 1847 only the extreme positions northward, Forts Brady and Snelling, experienced temperatures below 40°.

In 1848 the extremes were very nearly as in the first years named. In 1849 the lake posts of New York, Carlisle Barracks and Fort Kearney, were at 40°, and those northward below and southward above this point. In 1850 it was quite the same as in the previous year, and three posts of Oregon come in to give the exact measure of 40°, in addition to the posts enumerated for 1849.

In 1851 this extreme fell but little farther south—to Forts Scott, Leavenworth, and Independence, and it did not appear on the Pacific. In 1852 the stations of the Pacific and New Mexico gave temperatures below 40°, as far south as Fort Reading, in California, and at Forts Defiance and Santa Fé, in New Mexico. On the plains, Fort Atkinson, on the Arkansas river, was the point farthest south; at St. Louis, West Point, and Boston, and along the line connecting these points, there were none so low as 40°.

In 1853 the low extremes for September were quite the same as in 1852. In 1854 they were observed only at the extreme northern posts in the eastern part of the United States; but in New Mexico and California there was but little change from the preceding year.

It will be seen that there is great uniformity in the position of a line representing the point to which, at least, one extreme of 36 to 40 degrees occurs in September, in successive years. If it were possible to divide the month it would give a more precise and valuable definition; but, as it is, a line separating the coast of New England south of Boston, New York below West Point, the southern line of Pennsylvania and through southern Ohio to St. Louis and Fort Leavenworth, would divide the districts of the eastern United States in which frosts might be expected in September, from those in which they would rarely or never occur in this month. In New Mexico all north of Santa Fé and Fort Defiance, and in Oregon, at all points remote from the coast, temperatures below 36° might be expected in this month for every year.

The most southern points at which this measure of single extremes may occur are Fort McHenry and Fort Washington, Jefferson Barracks, and Forts Towson and Jesup, west of the Mississippi. The only instance of frosts at Fort Jesup in this period was in 1844, when two occurred at the close of the month, at recorded air temperatures of 36 and 39 degrees*. At the Pacific stations there is little variation in successive years, and liability to frosts is a marked feature of the climate of every part of the dry interior.

In October the extremes are such that in any considerable series of years no portion of the continent north of the latitude of New Orleans escapes severe frost. In 1843 frosts and ice occurred everywhere except on the peninsula of Florida, though they were lighter on the Atlantic coast than westward. In 1844 they were equally general, though lighter near New Orleans, and occurring near the close of the month. In 1845 there were none south of Fort Towson and Fort Monroe, and light at both these posts. In 1846 and the two succeeding years the number of posts was not so great as before, but for the first year the frost was apparently general in this month, and for 1847 and 1848 no considerable frost occurred in the Gulf States. The temperature of this month of 1849 was without any cold extreme for these States also, but in 1850 frost and ice occurred as generally as in 1843. In 1851 many parts of this district escaped frost, and in 1852 there was none below Forts Gibson and Washington. In 1853 frosts and ice were universal, except in the peninsula of Florida, and in a small portion of the lower valley of the Rio Grande, but in 1854 there were none in the principal districts bordering the Gulf. Thus in five years of a period of twelve the formation of ice occurred so generally as to destroy vegetation liable to be so cut off, before the close of October in the States bordering the Gulf, and it may be safe to assume that in the half of any period of years this will occur at all points north of the 30th parallel. The peninsula of Florida below 28° of latitude has no instance of frosts in this month, and the same exemption exists in the lower valley of the Rio Grande for the few years observed there.

In November some instances occur of absence of frost and ice along the borders of the Gulf through the entire month; 1844 affords one of these, but in the succeeding year severe frosts extend over most of the peninsula of Florida. The years 1846 and 1848 are similar to 1845, and 1847 is still more extremely cold. There are no exceptions to the liability, in alternate years, at least, for any point except the south of Florida, from Fort Brooke to Key West, and at the mouths of the Rio Grande and the Colorado of California.

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* As there are no military posts in the interior of the southern States between the Mississippi and the Atlantic, a reference may be made to the observations of Rev. Dr. Allan, of Huntsville, Alabama, where for nine years, 1831 to 1839, the lowest point observed in September was 43°.—*American Almanac*, 1841.

In all parts of New Mexico, when September does not bring ice and frost, they occur in October, but in California the coast stations observe no ice until November, when it occurs at all points, and as decidedly at San Diego as at San Francisco. The following tabular arrangement of the date of the "first appearance of frost" at several posts of the Atlantic and Gulf States, New Mexico, and California, will compare this phenomenon advantageously:

Stations.	1849.	1850.	1851.	1852.	1853.	1854.
Fort Monroe..........	Nov. 1	Nov. 18	Oct. 27	Nov. 14	Oct. 25	Oct. 16
Fort Moultrie.........	Dec. 13*	Oct. 26	Nov. 7	Nov. 15	Oct. 25	Nov. 14
Fort Marion†.........	Dec. 6	....	Dec. 5	Dec. 18	Dec. 30	Dec. 21
Fort Brooke..........	None.	....	Dec. 5	Dec. 12	Dec. 12	Nov. 29
New Orleans.........	Nov. 9	Nov. 17	Nov. 25	Nov. 28	Oct. 31	....
Baton Rouge..........	Nov. 6	Oct. 28	Oct. 14	Oct. 16	Oct. 25	Nov. 13
Fort Kearny..........	Sept. 25	Oct. 5	Sept. 27	Sept. 26	Sept. 30	Oct. 4
Fort Laramie.........	Sept. 25	....	Oct. 5	Sept. 23	Sept. 30	Oct. 16
Fort Arbuckle........	....	Oct. 18	Oct. 12	Oct. 9	Oct. 2	Oct. 20
Fort Brown...........	Dec. 10	Dec. 5	Nov. 25	Dec. 22	Dec. 18	Dec. 6
Fort McIntosh........	Nov. 25	Nov. 28	Nov. 21	Nov. 26	Nov. 10	Nov. 13
Fort Fillmore, (near El Paso)	....	....	Oct. 9	Oct. 9	Oct. 26	Oct. 29
Santa Fē..............	Oct. 2	....	Oct. 1	Sept. 20	Sept. 14	Oct. 4
Fort Yuma............	....	....	....	Dec. 3	Dec. —	Dec. 26
San Diego............	Nov. 24	Nov. 6	Nov. 28	Nov. 6	....	Oct. 14
San Francisco........	Nov. 6	Nov. 4	Nov. 28	Nov. 25	Nov. 4	Oct. 27
Fort Vancouver.......	....	Oct. 4	....	....	Oct. 22	Oct. 20?
Steilacoom	....	Oct. 5	Oct. 11	Sept. 22	Sept. 1	Sept. 19

* Frost on other parts of the island and on the main land earlier. For 1850, the date is that observed at Oglethorpe Barracks, Savannah, Georgia, and in 1851 there was no "killing frost" at Fort Moultrie until December 3.

† For 1849 the observation was at Pilatka, for 1853 at Fort Pierce, and for 1854 at Forts Capron and Myers. The dates correctly represent the east coast of Florida, below Fort Marion.

None of the years embraced here is as cold as would be found in a period of ten years preceding, and the dates are generally later than the average of any series of ten years. The east and south of Florida, Fort Brown, on the Rio Grande, and Fort Yuma, in California, quite uniformly are without ice and frost until December, though only the south of Florida, near Key West, appears exempt for all dates.

The limits just defined have been indicated on the thermal chart by lines for each of the autumn months. The curvature of the line for September, northward instead of southward, in ascending the eastern slope of the Rocky mountains, is not less marked than in the lines representing mean temperatures, and the actual dates observed at Forts Kearny and Laramie, as here given, may be referred to in proof of the position given the line. West of Santa Fé, in New Mexico, the line would probably fall further south than it is now drawn, and embrace much of the mountain plateaux south of Fort Defiance, but there are no observations except at this post and Fort Webster, and at the last named there are no instances of ice occurring in September. In California the line follows the Sierra Nevada, and in Oregon runs directly northward near the cascade range, the immediate coast being exempt throughout. The line marking this limit in October cuts off a narrow belt of the Atlantic coast below Charleston, the peninsula of Florida, and small portions of the coast of the Gulf westward. In Texas there is a large area so cut off, from the Colorado river to the Rio Grande, and in

California a considerable district of the great Colorado, and all the coast below San Francisco. In November there are three small areas exempt from frost, the largest at the southern extremity of Florida, one at the lower Rio Grande, and another at the mouth of the Colorado of California.

There are no sufficient data for comparison with similar latitudes in Europe in this important feature of temperature distribution. It is a distinguishing feature of the climate here, however, that these extremes occur in connection with very high mean temperatures, and that they belong to nearly every district, with very little apparent relation to mountains, whether near or distant. In the interior basins west of the Rocky mountains frosts are more frequent in comparatively warm months, yet scarcely a year occurs without the formation of ice in or very near to one of the summer months on the plains between the Ohio and Mississippi to the 40th parallel of latitude. These instances are, however, more remarkable as contrasts than important in practical results. In Europe the formation of ice in September is rare, if it occurs at all, at St. Petersburg; and the line of limit would probably extend to Moscow, and southeastward to Asiatic Russia at 50° of north latitude. The difference of latitude for western Europe from that of the central United States in this respect is more than twenty degrees therefore, and though the western coast here shows no instances of this phenomenon to the northern limit of the posts of observation, the distribution of these extremes is clearly to a much lower latitude here than on the eastern continent. At Pekin, China, in latitude 40° north, and corresponding in position with New York, the thermometer very rarely falls to the freezing point in October, and never in September.

The isothermals proper for the autumn chart show less abrupt curvatures generally than those for the spring, and if the deflections due to difference of altitude were removed most of the lines would nearly follow the parallels of latitude. The isothermals of 55 and 50 degrees are but slightly separated in New England, but in going westward they separate widely, and most on the Pacific coast, where that of 50 degrees does not cut the coast line at all, while that of 55 degrees falls nearly down to San Francisco. The lake district is warm in autumn, and the plains at the west of it retain so large a measure of heat that scarcely any depressions appear in the lines representing the mean, though November would give an extreme depression at this point. To define the position of the lines for this extreme month, that of 32° mean has been drawn on the chart, and its extreme depression west of the Mississippi to Council Bluffs and Fort Des Moines, and its abrupt rise to Fort Brady, show in a striking light the contrast of these districts in regard to the rate of temperature diminution as winter approaches.

The northern part of the area illustrated is warmer in autumn than in spring by about five degrees, the thermal line of 45° in autumn being nearly coincident with that of 40° in spring, but the distance separating the lines is not the same, and the correspondence is restored in going southward, the isothermal of 70° being in the same position in both. On the west coast there is little difference, except that the sea temperatures are higher in autumn, and the thermal lines curve northward instead of southward on reaching the Pacific. The large area between Fort Vancouver and San Francisco, which is at 52°.5 generally in spring, is again at the same measure, and this degree would probably correctly represent much of the interior area of half desert basins between Humboldt river and the Columbia.

On the great mountain plateaux the lines and curvatures are nearly as in spring, though warmer at the northern extremity. The thermal line of 45° might be carried across the Rocky mountains, at the 47th parallel, with but a small interruption, as these mountains form but a narrow range between the sources of the Missouri and of the north branch of the Columbia. The observations of the northern line of survey of the Pacific railroad furnish valuable data for the two points of Fort Benton and Fort Owen.

At the Atlantic coast there is less diversity in sea temperatures in autumn than in spring, and less contrast with those of the land. The sea, in the neighborhood of the Gulf stream, is warmer than the land, and the thermal lines generally curve slightly northward. At Bermuda the observed temperature for a single year is 71½°, which is warmer than the continent by nearly four degrees of latitude. A mean for a period of years would give less difference.

The Gulf of Mexico is warmer in autumn than in spring, though it varies very much from September to November. In the last month there is a greater refrigeration of the western than of the eastern portions, and the influence of the cold storms of that part of the Gulf and of the coasts of Texas and Mexico is very decided in depressing the mean temperature. As the air temperatures are deduced from those of the water, however, it is hardly possible to define the isothermals accurately, and they may require more decided northward curvatures over the Gulf than are here given them. South and east of Key West, and in the vicinity of Cuba, the Gulf stream prevents the continental refrigeration from exerting the influence observed in other portions of the Gulf, and the water temperature retains its measure of 80° throughout November.*

With the west coast of Europe the contrast is very great for this period, and the isothermal of 50° at Boston goes to 60° north latitude at the northward of Scotland, though it returns, through England and Germany, to 47° of latitude in central Europe. The warm waters of the Atlantic exert so marked an influence on the coasts and islands of northwestern Europe as almost to defy comparison with like latitudes anywhere. Within the immediate coast a contrast of less than five degrees of latitude exists in Europe as compared with the Atlantic coast here, and the immediate coast of the Pacific here is quite similar to the European coast south of the British islands.

The oscillations of temperature in successive years for the same months, and for the mean of the three in autumn, is less than that occuring in the spring months having similar temperatures. It is also at a part of the year less important, in every sense, other than in regard to the most abstract questions of temperature distribution, and the illustration of this range, by thermal lines for single months, has not, therefore, been given. The range is large, however, in every month, and that for September is greater, when the small diminution from the summer temperatures which generally belongs to it is considered, than would appear probable, even in a climate so much characterized by large measures of variability. In the following table the posts which were selected to represent the range in the spring months are given with the maximum range for the months of autumn, and the periods are, in most cases, or with the exception of the Pacific stations, sufficient to give the entire range.

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* See Maury's Wind and Current Charts, Thermal sheet.

Range of temperature in the mean of Autumn months.

STATIONS.	SEPTEMBER.			OCTOBER.			NOVEMBER.		
	Highest M. T.	Lowest M. T.	Range.	Highest M. T.	Lowest M. T.	Range.	Highest M. T.	Lowest M. T.	Range.
Fort Snelling	69.1	54.2	14.9	54.7	40.9	13.8	42.8	20.5	22.3
Fort Leavenworth	73.7	61.3	12.4	62.5	46.6	15.9	50.3	28.6	21.7
Jefferson Barracks	75.9	61.4	14.5	63.9	46.8	17.1	51.4	32.4	19.0
Fort Gibson	79.6	68.0	11.6	67.2	56.1	11.1	59.2	40.4	18.8
Fort Jesup	81.5	72.9	8.6	73.0	59.8	14.2	63.6	49.6	14.0
New Orleans*	81.5	75.7	5.8	75.4	66.4	9.0	68.1	57.1	11.0
Fort Brooke	81.9	76.3	5.6	76.1	69.5	6.6	71.9	62.1	9.8
Key West	83.5	79.5	4.0	80.4	73.9‡	6.5	77.3	70.8	6.5
Fort Moultrie	81.5	72.9	8.6	74.2	63.2	11.0	64.5	52.0	12.5
Fort Monroe	76.6	68.5	8.1	67.2	56.9	10.3	56.8	44.3	12.5
Fort McHenry	71.6	61.8	9.8	60.1	48.2	11.9	53.5	38.9	14.6
Fort Columbus	70.9	60.7	10.2	59.2	45.8	13.4	51.1	38.2	12.9
Alleghany Arsenal	69.9	57.4	12.5	58.0	38.2§	19.8	45.3	30.8	14.5
Watervliet Arsenal	66.8	55.6	11.2	54.0	41.9	12.1	45.1	33.1	12.0
West Point	69.1	60.6	8.5	59.0	46.0	13.0	49.9	36.4	13.5
Fort Constitution	62.2	55.4	6.8	51.7	44.5	7.2	46.0	33.9	12.1
Fort Sullivan	60.8	53.2	7.6	51.9	44.2	7.7	43.5	31.6	11.9
Ringgold Barracks	83.1	80.6	2.5	77.1	72.9	4.2	69.8	63.2	6.6
Fort McIntosh	86.6	80.7	5.9	77.2	71.2	6.0	68.0	60.2	7.8
San Diego	73.5	67.6	5.9	68.9	63.0	5.9	58.4	56.4	2.0‖
Benicia	68.0	61.7	6.3	65.8	58.9	6.9	56.9	54.4	2.5
Fort Vancouver	61.6	60.2	1.4†	53.9	51.9	2.0	52.5	43.1	9.4
Fort Steilacoom	59.6	56.5	3.1	53.6	51.7	1.9	46.8	41.2	5.6

* At Fort Pike, for September.

† Three years only.

‡ For 1835. The mean of this month is given at 76° by W. A. Whitehead, esq., collector of customs at Key West.

§ For 1836. This was clearly the coldest month of this period, yet it is probably an error in some measure. The same month at Marietta, Ohio, was at 45°.

‖ This month does not embrace a period sufficient to show the range at these stations—it cannot be less than in the preceding months.

The general features of this variability are the same as in spring in regard to the preponderance of the quantities below the mean over those above it, and in the decrease of range toward the higher mean temperatures. November does not equal March in its measures of variation, however, the maximum variation for the coldest post, Fort Snelling, being less by nearly fourteen degrees.

The range at posts near the Gulf of Mexico, and on the southern Atlantic coast, is surprisingly great for these months. At Forts Jesup, Moultrie, and Monroe, particularly, it seems scarcely credible that the same month should differ so largely in temperature in successive years. But the remaining posts, not given here, confirm these measures, and there can be no doubt of the reliability of results which agree at stations in the same vicinity both in their absolute and comparative temperatures. Whatever zero error may exist in any instrument, its comparisons for successive dates are not affected, and if the dates and measures of difference at two stations, not far distant, are found to agree, both records are sufficiently verified.

For the purpose of comparison of the measures of variation in a period of years in the interior of

Europe, the following records may be cited:* Riga, on the Baltic, in latitude 56° 57′; Cracow, Poland, latitude 50° 4′; and Taganrog, near the Black sea, Southern Russia, latitude 47° 12′ north. At Riga, for thirty-five years, from 1795 to 1832, inclusive, the maximum range for the three months of autumn is 12°.1, 13°.1, and 20°.2, successively; at Cracow, for twenty-seven years, from 1826 to 1832, 11°.8, 10°.8, and 12°.4; and at Taganrog, for sixteen years, 1817 to 1832, 7°.2, 9°.4, and 20°.7.

Stations.	SEPTEMBER.			OCTOBER.			NOVEMBER.		
	Highest.	Lowest.	Range.	Highest.	Lowest.	Range.	Highest.	Lowest.	Range.
Riga	57.8	45.7	12.1	46.1	33.1	13.0	40.5	20.3	20.2
Cracow	63.8	52.0	11.8	53.0	42.2	10.8	41.2	28.7	12.4
Taganrog	62.6	55.4	7.2	53.1	43.7	9.4	46.8	26.1	20.7

These results show that the interior of Europe has a large measure of this description of variability, and that, if the corresponding portions of the two continents were compared, there would be less difference between them than is usually supposed to exist, if, indeed, any difference in regard to the variability of mean temperatures remained. It appears inexplicable that a difference greater than the measure of the lowest temperature above zero may occur between like months of the successive years of a series at latitudes so low, and at stations with so high mean annual temperatures, as Forts Leavenworth and Snelling, and this also without any apparent periodicity or gradation of years from the coldest to the warmest. These variations are undoubtedly absolutely non-periodic, since the longest series of observations show no return of any extreme, by whatever steps that extreme was at first approached, and the greatest contrasts are as likely to occur at dates very near each other as at remote points of the series.

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* Annales de l'Observatoire Physique, Central de Russie, St. Petersburg, 1853.

DISTRIBUTION OF TEMPERATURE FOR THE WINTER.

The order of arrangement of temperature statistics has usually been to place the results for the winter first, and in many systems to include the last month of each year with the first two of the next. This order makes the winter a continuous period, and its measurements of temperature, and other conditions, have heretofore been considered first in examining results for the year, in most of the European systems. The inconvenience of such a form of presenting the statistics, has, however, usually caused the arrangement of the results of observations in American systems in seasons derived from the single year, and the winter is thus made up of two periods, separated by the remaining months. In this arrangement the winter comes last in the enumeration, and has its more natural place in the thermal year, notwithstanding the defect of its period, since it is the natural close of the temperature curve rather than its beginning. If the consideration of time alone were not controlling, it would be still more appropriate to take the winter period, of the three continuous months, as the last of the temperature divisions of the year.

There are many points of convenience, at least, in the order here followed, and the examination of the winter features is facilitated by passing immediately from its features to those of the year. The displacement of time of the first two months has, apparently, no effect on a general summary, though single years are but imperfectly represented, and the comparison of months becomes the best mode of exhibiting the changes of successive years. The annual curve of temperature displaces the thermal year in its relation to the astronomical year by something more than a month, or from December 21st to January 28th for the average of the United States; and two-thirds of the period designated as winter thus belongs to the descending branch of the curve. As the characteristics of the three months are derived from the descending temperatures mainly, the more natural position of the season is at the last, and preceding the summary for the year.

The area embraced by these observations presents an extreme of low temperature, generally, for the winter; and the normal continental refrigeration, or that which would occur if no part of the continent had much elevation above the sea, is, undoubtedly, much exaggerated by the great altitude of the mountains and high plateaux near the Pacific. The western half of the continent is so much affected by this feature of configuration that no low inland areas experience a softened climate, like the climate of such areas in western Europe, and the question whether such sea influences exist here as as are found on the west coasts of the eastern continent, has been, for this reason, and still is, much obscured. It is very clear that the winter depression of temperature here differs more from that of the same latitudes in Europe than the measure of summer heat does from theirs, or, in a word, that if all the low temperatures here were less extreme, the parallelism of the two continents would be nearly restored.* The isothermals for the summer are, on the whole, in quite similar positions of latitude for the two continents, and the borders of the Gulf of Mexico, on the north, equal the temperatures of the south shores of the Mediterranean in the same latitudes. The line of 68° for July, in Germany and central France, is reproduced in Canada, and on the plains of the upper Missouri, on the same parallel; and this equality, at that part of the year, is very striking.

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* Sir John Richardson remarks this feature of the comparison of the two continents in his Analysis of the Climate of British America. (Arctic Expedition in search of Sir John Franklin.) "The mean annual heat of Europe is from 8° to 15° Fahrenheit greater than that of America at the same distance from the equator, while the summer heats differ only from 2° to 6°; the inferior mean heat of America is, therefore, due principally to excessive winter colds, and this is decidedly the case in the interior."

It is not intended here to enter upon the consideration of the causes of this most conspicuous feature of winter temperatures on this continent. There are, probably, others more general than that just mentioned, or, at least, others than the vertical configuration, though the great altitude of the mountain districts near the Pacific must very much aid the reduction of the winter temperature by precipitating the moisture of the sea winds and surface atmosphere, and by preventing the circulation of the warm sea atmosphere to the interior. There is further proof that this cause largely affects the temperature distribution in the high and uniform temperatures of the immediate coast of the Pacific to the northern limit of these observations. The decrease in the winter mean is but ten degrees for fifteen degrees of latitude from San Diego to Astoria, or two-thirds of a degree of temperature to one of latitude. Continuing to Sitka there is a diminution of six degrees of temperature for eleven of latitude, or nearly the same proportion. The influence of the Gulf stream on the coast of Europe is so great that the parallel conditions do not obtain, yet there is not a wide difference between the measures of diminution observed there and those of the Pacific coast.*

With this general feature of an equable temperature on the Pacific coast, and a wide separation of the isothermal lines, is next associated the rapid decrease of temperature on the meridians of the interior and the compression of the isothermals there, and at the eastern coast. Of isothermals differing five degrees but three can be made to cut the Pacific coast from San Diego to the 49th parallel, while in New Mexico six such lines are compressed within five degrees of latitude, and on a central meridian terminating at the mouth of the Rio Grande, thirteen isothermals of five degrees difference occur, and on the Atlantic coast the same number from Maine to Florida. The interior line crosses twenty-three degrees of latitude, and that of the Atlantic coast twenty-two, and taking the differences of temperature of the extreme isothermals we find the diminution to be at the rate of two and seven-tenths degrees of the thermometer to one degree of latitude, a ratio, in comparison with that of the Pacific coast, of more than four to one. The compression of lines in New Mexico is exceptional, because the altitude increases very rapidly, yet the area so influenced is so large that it is necessary to represent the superficial distribution without reducing the observations to their equivalents at sea level. The anomalous distribution which would be introduced by this course is elsewhere alluded to, and it is as necessary to adhere to the mode of illustration here chosen in winter as for other periods.

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*Taking three stations on the western coast of Europe which most equally divide the distance to 60° north latitude, we find measures, both positive and relative, differing little from those of the Pacific coast of this continent, as may be seen by the following tabular arrangement:

AMERICAN STATIONS.				EUROPEAN STATIONS.			
	Lat.	Mean winter temp.	Dec. for each deg. of lat.		Lat.	Mean winter temp.	Dec. for each deg. of lat
San Diego	32° 42′	52°.3	....	Lisbon	38° 42′	52°.5	....
Astoria	40° 11′	42°.4	0°.74	Penzance, England	50° 7′	44°.2	0°.72
Sitka	57° 00′	36°.5	0°.55	Bergen, Norway.,	60° 24′	36°.3	0°.77

Notwithstanding the great interior altitudes, the general course of the winter isothermals very clearly recognizes the unequal temperatures of the opposite sides of the continent, which are usually considered to belong to the great land areas in these latitudes. The point of natural minimum temperatures for the continent is broken up by the presence of the great lakes, and for this reason the greatest depression falls west of them, though at several points further east, and in northern Maine, particularly, the lines fall very nearly as low. With an allowance, even at a very low rate, for decrease of temperature with the altitude, the curve of the isothermals from the Mississippi westward would be quite sharp toward the north, and the analogies of the winter distribution on the eastern continent would be found to hold. But for the local influence of the great lakes this curvature would evidently find its lowest point farther east, and the coldest district would fall, as in Asia, near the eastern border of the continent.

The ameliorating influence of the lakes is too decidedly marked to escape attention, and its favorable effect on the general climate cannot be unimportant. The peninsula of Michigan, Ohio, New York, and Vermont, with much of Canada, show decidedly higher temperatures near the lakes, and the abrupt curve of the isothermals from the Mississippi valley to Lake Michigan proves that the altitude is not the cause of the amelioration. The presence of these large bodies of water in the area when the greatest winter cold would naturally fall, is most fortunate for the cultivable districts of this part of the United States, and though they may, from some addition to the humidity, add something to the sensible temperature of the colder months, they prevent the extreme low temperatures which would otherwise occur.

The east side of the continent agrees strikingly in temperature with similar latitudes of the east of Asia: Pekin at 40° of latitude has a winter mean of 30°, or very nearly that of New York. The general position of the isothermals for January given by Dovè for the two coasts is quite similar, and the Asiatic coast has also a warm ocean current similar to the Gulf stream. The greater contrasts of the two continents thus belong to the western areas, or to the comparison of this as a whole with the unusually warm area of western Europe.

The position of the thermal lines in the northeast, on leaving the coast towards the interior, should have a sharper curve southward than that given them from the posts of northern Maine, as these, Forts Kent, Fairfield, &c., are much less elevated above the sea than the interior of New England generally. The lake valleys are all low also, and the isothermal of 25° recurves from Fort Ontario to the highlands of southern New York, and falls off southward some distance before finding a passage across the high interior of these States. The line of 32° has less curvature at the mountains it passes, and its general course from the coast to the interior is slightly south of west—at its lowest point on the plains being near three degrees south of its position near New York, on the Atlantic coast.

Below this line the isothermals are but little curved, and they all tend southwestwardly, though, with corrections for altitude, they would recurve northward beyond the Mississippi, except at the Lower Rio Grande. At this last point it is clearly colder in winter than at the sea level in any corresponding part of Florida. The peninsula of Florida has two thermal lines which do not appear in Texas, those of 65° and 70°, and the highest temperature of Texas, 62°.5, cuts the Florida peninsula at the middle, and at a point two and a half degrees of latitude further north than its position in Texas.

As it is, the central portion of the plains at about the 97th meridian is the line of minimum temperatures, and of the most extreme southward curvatures. West of this they divide in both directions, going much further south on the high plains of Texas, and bending still more sharply north on the northern part of the great plains. The line of 32° is the first which curves north instead of south as the altitudes increase—that of 30° changes position still more, and that of 25° passes from a point south of Fort Kearney on a diagonal to the areas of latitude and longitude to the sources of the Missouri river, or across eight degrees of latitude. This is an unexpected result, which is due in part to the decrease of altitude on this line from the Arkansas to the Upper Missouri of more than fifteen hundred feet at 105° west longitude, and of two thousand feet from Fort Laramie.

On the plateaux of the Rocky mountains, and in New Mexico, the curvatures are generally similar for all seasons. The great return curves are mainly due to altitude, and they bring the winter climate of Fort Mackinac down to thirty-seven and a half degrees of latitude in New Mexico—a mean of 20° being found there, at Fort Massachusetts, while the mean of 40° occurs at Fort Monroe on the same parallel of the Atlantic coast. The line of 32° lies south of Santa Fé, and west of the Rio Grande the plateaux of the Sierra Madre, at Fort Defiance, are two or three degrees colder still.

From this last point the thermal lines of 20°, 25°, and 30°, run on true diagonal lines northwest, and those of 32° and 35° nearly so, making only a single curvature southwestward in the mountains of Oregon; but neither of these lines reaches the coast at any point south of Sitka, in latitude 57°. The line of 40° is pressed westward by the mountains so much as to run parallel to the coast from the northern line of the chart to California, and here it turns to the Sierra Nevada, which is followed most of its length. The position of this line, and of those of 45° and 50°, is undetermined between the posts of California and those of New Mexico, but they are connected in the view that the deserts which they cross are here elevated and cold in winter, and that the districts east of the Colorado are still more decidedly cold at this season, as they are known to be very greatly elevated in the vicinity of the thirty-fifth parallel. The lower valley of the Colorado, at Fort Yuma, gives a high winter temperature, compared with the districts in its vicinity, yet it is much less extreme in this comparison than at other seasons. On the coast, as has before been noticed, the lines have a sharp curve northward, and they are widely separated, those of 45°, 50°, and 55°, only appearing on its whole extent.

At sea, on the Pacific side, the absolute temperatures are at once higher than those of the land, and higher than in summer for two or three degrees of longitude next the coast. The thermal lines bend abruptly to conform to this difference, but it is probable that after changing position four or five degrees of latitude, they follow the parallels for an indefinite distance toward the central regions of the Pacific ocean. The mean of a sufficient number of observations to afford a near approximation to the water temperatures here, gives the numbers 56, 59, 57, 57, and 58,* for successive areas of five degrees extent, both in latitude and longitude, from San Francisco to the meridian of the Sandwich Islands. On the next line of similar areas southward, or between 30° and 35° north latitude, the numbers taken successively from the coast are 56.5, 57, 63, 64, and 57. The number of observations in this case is less than before, and the irregularity is due to this fact, in all probability.

In the Gulf of Mexico the water temperatures are much above those of either coast. The mean of three sets of observations, equidistant in the area from New Orleans to the 25th parallel, gives 70° for the body of water nearest the coast, 73° for the second, and 76° for the vicinity of the 25th parallel. Yet the temperature at Fort Brown, near the mouth of the Rio Grande, is but 62°.3, and

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* From Maury's charts.

Key West, at this parallel, and surrounded by warm waters, has a winter mean of but 70°. There is, undoubtedly, a difference as great between the temperature of the air of the Gulf in winter and that of the waters, as between the measure at Key West and that derived from the mean of water temperatures at this parallel. The known preponderance of land winds, and the frequent occurrence of great depressions of temperature during these winds, may account for a greater difference between sea and air temperatures, under these circumstances, than would be found elsewhere. Sudden and extreme changes, reducing the temperature of the air many degrees for two or three days, are characteristic of the winter climates all around the Gulf, and as the surface waters continually come from warmer climates to supply the draught of the Gulf stream, the water participates less in these depressions than the air, or than bodies of water not constantly supplied with new accessions.

The Gulf coasts are not modified by its high temperature in winter so much as would seem inevitable under ordinary circumstances, and the only apparent reason is the great relative refrigeration of the continent generally, and the consequent prevalence of land winds instead of winds toward the continent. These winds are violent, also, in proportion to the contrast of temperatures, and as no general atmospheric circulation aids to drive the sea air inland, as is the case in the west winds of the European coast, and to some extent in the summer winds of the Gulf, the natural reversion from the land prevails, and little modification of the climate of winter is due to the presence of warm waters in the Gulf.

Similar results belong to most of the Atlantic coast, and the thermal lines all curve largely northward under the influence of the warm waters of the Gulf stream. Observations of water temperature, very near the coast, give measures but little higher than those observed at posts on the land; but at short distances at sea the increase of temperature is very great, and if the prevalent winds were reversed, the climate would be greatly softened by the proximity of waters of so high a temperature. Off the coast at Fort Monroe, the first set of observations, from a breadth of one degree of longitude, gives a mean for the water of 46°, the next 61°, and 65°, 69°, 68°, and 67°, successively; showing a rapid increase, and a very high temperature for the central bands of the Gulf stream, beyond which they fall off somewhat.* These temperatures must greatly modify the heat of the atmosphere of the vicinity at least; and they require the compression of the isothermals quite closely along the northeastern coast and near Newfoundland. As the sea has a temperature of nearly 50° at the 40th parallel, and within the principal part of the Gulf stream—the mean of sixty-five observations off the coast between 37½° and 40° of latitude and west of 70° of longitude being 51°, the isothermal of 50° must come near this latitude on the meridian of Newfoundland, and the lines from 25° to 50° are, therefore, compressed into a space of seven degrees of latitude in winter on the Newfoundland banks. At high temperatures the measure for the air may differ largely from that for the water, especially where strong atmospheric movements from land areas change the temperature rapidly, but at temperatures near 32° the difference is much less, and over unfrozen seas the air is usually retained at or near that temperature, when great comparative depressions occur on the land.

In constructing the isothermals of the northern boundary for the winter, the most thorough comparison of accessible data beyond the limits of the United States has been made to ascertain whether the positions given by the military posts there would be essentially modified in any case. At this season the changes for like distances of latitude are greater than at any other, and the minimum of continental temperatures is well defined, falling to zero of Fahrenheit at the 95th meridian. The observations in British America are made up of several series at St. Johns, Newfoundland; at Halifax and Frederickton, N. B., Quebec, and Montreal, republished by Dovè; the valuable series at Toronto, and a large collection, by Richardson, of temperature observations near Lake Superior and in every part of British America.* In this last collection there are posts on the Ottawa river; at Michipicoten and Fort William, on Lake Superior; Rupert House, Oxford House, Cumberland House, and others in the immediate vicinity of the positions given to the thermal lines of the charts, or in the direction of their extension beyond the United States boundary. These references have greatly aided in affirming the positions outlined by the observations at the military posts, and there is no instance of any considerable discrepancy, such as might be likely to occur, even with entire accuracy of all the records, from the differences of date and the short periods of observation in the different cases. It is evident that the non-periodic range of winter mean temperatures is less than that of other seasons in the highest observed latitudes, and less than that belonging to the same period in the south of the United States. The following comparisons illustrate this important fact in temperature distribution:

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* The observations here used are from Maury's charts. The Coast Survey researches (Coast Survey Reports for 1853 and 1854,) give decisive measurements of deep-sea temperatures in the Gulf stream, and of the position of the various currents and bands of warm and cold water.

Northern posts of the United States—					
Hancock Barracks, Me., - - - - - -	17	years;	maximum winter	range;	7°.1
Fort Brady, Mich., - - - - - - - -	31	"	"	"	7°.2
Fort Mackinac, Mich., - - - - - - - -	24	"	"	"	9°.9
Western posts—					
Fort Winnebago, Wis., - - - - - -	16	"	"	"	9°.4
Fort Snelling, Min., - - - - - -	35	"	"	"	15°.9
Southern posts—					
Fort Gibson, Ark., - - - - - - - -	27	"	"	"	14°.4
Fort Jesup, La., - - - - - - - -	23	"	"	"	14°.8
Fort Moultrie, S. C., - - - - - - - -	28	"	"	"	16°.7
St. Augustin, Fla., - - - - - - - -	20	"	"	"	15°.4

The posts of the western interior are seen to be exceptional, and to have nearly as great a range as those at the south, yet it is clear that low temperature alone, beyond a certain limit, has the effect to diminish the range of non-periodic oscillations, and to render the climate more equable. If this outlined result shall be found to be sustained, it would point to the conclusion that the great non-periodic variations of temperature are confined to the temperate latitudes mainly, or are only intruded into the arctic regions in the summer and in connection with a certain degree of heat, and certain conditions characteristic of temperate climates.† The most striking range is shown at Fort Moultrie, and, in the absence of supporting observations, its accuracy might be doubted, but the extreme dates, which are 1828 for the high temperatures, and 1831 for the cold extreme, are also the dates compared at St. Augustine, Florida, with nearly the same range. At Augusta arsenal, Georgia, the same dates give a range of 14°.3, and at Fort Johnston, N. C., a range of 16°.7, or precisely the same as that observed at Fort Moultrie.

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*Prof. H. W. Dovè, in Transactions of Berlin Academy, 1848, and in Rep. of British Association, 1847 and 1848; Col. Sabine, on the temperature of Toronto, in Phil. Trans. Royal Society, 1853; Arctic Searching Expedition, a Journal of a Boat Voyage through Rupert's Land, by Sir John Richardson, 1852; Canadian Journal of Ag. and Science, etc.

†The Arctic temperatures hitherto published are scarcely decisive of this point, yet the uniformity of winter temperatures in very cold climates is constantly noticed. Richardson remarks that "in the high latitudes the mean heat of the three winter months does not vary greatly in different years," and that "the intense winter colds are due, in a great measure, to active and undisturbed radiation." He also infers a small range of summer temperatures in high latitudes; but there are frequent references, both in Richardson's work and in others of a like character, to seasons "a month later" or a month earlier than usual, and to great differences in the amount of ice and snow at like dates of the warm seasons in these latitudes.

On the Pacific coast the periods are insufficient to show what the range for the winter may be, but the greatest recorded in periods of six years is four degrees. It is undoubtedly less than that for any other districts, as, at Key West, years next succeeding each other frequently give a greater range, and the greatest in fourteen years is 8.2 degrees. The stations in New Mexico are also incomplete in their periods; but the range appears to be very nearly the same as at the same temperatures in the eastern United States.

The range for single months of the winter has less practical importance than that for the seasons previously noticed, except, perhaps, at the extreme south, where a semi-tropical cultivation exists. This range is everywhere very great, and the minimum in any winter very irregular in its position in the period of three months. There is, also, the most absolutely non-periodic character belonging to all these changes, both as regards the same year and in a series of years. As an instance, the mean for January at New York is fifteen times below 30° in a period of thirty-three years, yet there is no similarity in the relations of any single date or succession of dates, and no approach to symmetry of the curves of a line traced through the successive means. In a line so traced for January there are five instances of large departures, with one or two years intervening between the extremes; but there are also many single departures or differences, nearly equal to those, made up of two or three years, and there is no apparent conformity of any portion of the line with a striking feature of any other portion. In February there are three or four high and low points, but they are unequal in degree and in distance. In December the same great and unequal variations occur, with a preponderance of large changes in single years, as in February; and the only noticeable feature of uniformity is that the opposite extreme for any month may be expected in the first year, or within two or three years, following a very warm or very cold month.

The period of a month is generally taken as the average duration of the greater number of non-periodic variations, and these comparisons confirm the correctness of this definition of the period of a large class at least, as the number of contrasts is equal to the number of coincidences in comparing the three months. Taking the coincidences, or the curve for the whole winter, into consideration, we find the same irregularity of position, and the same preponderance of large changes in a single year. If there is a periodicity in either period, no trace of it is apparent in the curves for this period of thirty-three years.

The discussion of other series is perhaps unnecessary in this connection, as it is apparent at a glance that their general features are the same. The field opened for tracing the position and degree of these non-periodic variations is, however, an unequalled one in respect to the area they influence, if not sufficient, in regard to time, to decide the question of periodicity beyond question. As the signal monthly extremes belong more decidedly than otherwise to the colder months, some comparison of the districts influenced by these variations may be made here.

Taking the cold extremes first, and commencing with the single months of winter, we find five instances, in thirty-five years, of a mean below 6° for January at Fort Snelling. The lowest, in 1820, appears to have been general, but it cannot be traced, as there were then few perfect records; the next below 6° was in 1834, and belonged only to January; in the lake district and at the east there was but little change, and the depression was not thrown forward into the next month; but all the western interior had a temperature eight to twelve degrees below the average, even as far south as Fort Jesup. At New Orleans the fall was less, and Key West was about five degrees above the mean. This refrigeration was evidently confined to the interior, and had no progressive movement, as the following month was of a higher temperature than usual everywhere. The next of this class was in 1847, and the cold characterized the whole winter, with much the lowest point in January. Going east, as before, from Fort Snelling, the cold of the whole period disappears in New York and the northeast; but the upper lakes show a considerable depression, which extends, as before, only toward the south and west, and disappears before reaching Florida. At these posts, again, the heat is much above the mean, and this is the case as far north as Fort Monroe. The next instance is in 1849, when January is the coldest point of a cold winter at Fort Snelling, as in the previous cases; it is similarly cold at all the northern posts to the Atlantic, and as far south as New York; but there is little change at Detroit and in the interior southward; the south Atlantic posts are at the average temperature, and those of Florida warmer than usual in January, though two or three degrees colder in February. At New Orleans this last feature was still more decided, but the western interior gave, as in the previous cases, the same low temperature that was felt at Fort Snelling. In 1854 the lowest point since 1820 was observed at this post in January, and the relations of this may be widely traced at the west; but at the east it was not felt at all, and in Florida a reverse condition prevailed to some extent,—at Key West 5° of excess above the mean temperature. All the western interior participated in the depression, as before, with the whole of the continent westward from Fort Snelling, including California and some parts of New Mexico. The difference at Fort Laramie was 8°.5; at the posts of Oregon, 8 to 10 degrees; and in California 3 to 5 degrees, except at the two posts of the south, San Diego and Fort Yuma. At stations in the Rocky mountains at 47° north latitude the same depression occurred.*

Of extreme low temperatures less marked at Fort Snelling, the first in January is in 1831, and this was universal in the south and west, but it disappeared at Fort Mackinac and in the lake district, and it was felt but very slightly north of Philadelphia. At Key West it also disappeared, but at other posts in Florida there was a fall of some degrees.

In 1838 and 1844, great depressions of temperature occurred at Fort Snelling in January, and in 1823, 1829, 1832, 1835, 1843, and 1853 nearly equal extremes of cold in February. In December, the years 1822, 1831, 1848, and 1849 were so distinguished. The cold of 1838 was in both January and February, but at every other point it occurred only in the latter month, and it was then quite universal, and as severe at the east and south as at Fort Snelling. In 1844 the cold of January was but four degrees below the mean at Fort Snelling, and about the same in the lake district, but north and east of New York it was eight to ten degrees below. South of St. Louis the month was warmer than usual by four to six degrees.

Of the February extremes that of 1823 appears to have been universal, at it occurs at Fort Jesup, in Florida and South Carolina, and at Fort Sullivan in nearly the same degree. That of 1829 was almost equally general, disappearing in Maine and the south of Florida, and having its largest measure at St. Louis; that of 1832 was confined to the northwest, the lake district, and Maine, while the south was five to eight degrees above the mean; that of 1835 was very severe at the southwest and south, causing disastrous frosts in Florida and the semi-tropical districts, but moderate and unimportant over the entire north. In 1843 the greatest non-periodic variation occurred, embracing March, and giving a decreasing temperature from the mean of January through both the following months, over all the south and west. It was less extreme in Florida than the cold of 1835, but much greater everywhere else. In the northeast the minimum was in February, and the depression not so great as elsewhere. The February minimum of 1853 was confined to the extreme northwest, appearing only at the posts nearest Fort Snelling.

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* Report of survey of railroad routes to the Pacific.

Of the December extremes that of 1831 was very general and severe, embracing Florida, and having the largest measure of depression at almost every point that appears for this month in any year. That of 1848 appears only at the northwest, and at the southwest above Fort Jesup, while at the east and south the temperature is some degrees above the mean. That of 1849 is confined to the northwest alone, and no compensating extreme appears at any point.

This examination of the non-periodic depressions of temperature has been made upon the striking winter extremes because they are more readily traced, and their law should be more easily deducible from such marked cases. The points which may be noticed are, that from this central continental area defined by Fort Snelling there appears no progressive movement of these extremes, that is, they are not first observed here and subsequently transferred to another month at the extreme point of any line of distance. That of 1843 continued much longest at the west and southwest, moving in that direction if any movement could be supposed, but there are no other evidences of movement. Those of January generally influenced the western districts uniformly, were interrupted or modified in the lake district, and had some evidence of the existence of compensating temperatures at the southeast and northeast. But in February there were no important indications of this sort, and in December but one appearance of compensating temperature. In 1854 the refrigeration belonged to nearly the whole continent, and there was certainly no evidence of progressive movement.

In examining other series for periods of about thirty years, the number of depressions of temperature amounting to five degrees on the monthly mean is generally five for each month, or nearly as many as at Fort Snelling. The entire area east of the Rocky mountains appears liable to an equal number of these variations, and to measures for each more nearly equal than would be found if these variations were the consequence of continental influences alone, and though they have been examined from the point which may be regarded as the maximum district of refrigeration, the oscillations are certainly no greater at Fort Snelling than at posts much less distant from the coasts. The most important inferences are that the origin of these non-periodic oscillations is exterior to the continent, and that they are central to the belt of temperate climates—that they have no progressive movement, and that they are modified by local influences from land or water surfaces, but not essentially controlled by them in any case.

MEAN ANNUAL DISTRIBUTION OF HEAT.

THE distribution of heat exhibited by the mean temperatures for the year less clearly illustrates any positive condition than that for either of the seasons, and, as the curve for the various parts of the year is greater here than in most observed countries, it is proportionally further from the desired positive value in such comparisons. The mean for the year is passed in the annual march of temperature, during the months of April and October, and in the central districts, at the 80th to the 90th meridians, these two months are very nearly correct representatives of the mean temperature for the year. At the east of this line April is always below the mean and October above it, and this difference is greatest at the farthest points north and east, amounting to about two and a half degrees of deficiency for April, and to four degrees of excess for October. The points representing the annual mean would be at the close of these, or at the first of the following months. The same distribution exists in the lake district, but west of it April at once becomes warmer than the year, and for the interior north of St. Louis both months are two degrees or more above the annual mean ; showing that the number of days above the mean is greater than of those below it, and that the cold is more extreme than the heat, or a greater departure from the natural symmetry. In the southwest October is more or less below the mean, and April two or three degrees above it, but this feature belongs to the eastern part of the plains, and not to Texas. At most of the posts in Texas both months are above the mean. On the western side of the plains, at Fort Laramie, April is again below and October above; in New Mexico they appear nearly equal, though the periods are imperfect. In California October is often the warmest of the year, and there is no regular curve, but in Oregon the annual curve appears to be thrown forward as in the Atlantic States.

An analysis of the curve for each of these districts by the aid of daily means of temperature would have great value, and without it we can only roughly say that the point where the temperature march for the year cuts the mean may change from the 1st of April to the 1st of May, and from, perhaps, the 10th of October to the 10th of November. The number of days above the mean is generally greater than the number below, and for the interior east of the Rocky mountains greater by nearly half a month. In a very valuable review of a series of temperature observations at Toronto, Canada, for twelve years, Colonel Sabine* gives the mean or nominal temperatures for that latitude, 43° 40′, as taken from Dovè's "Verbreitung der Wärme," and also the thermic anomaly, or differences of the Toronto measures from these theoretical normal quantities. As this series is a type of all the series of these posts north of 35° of latitude, it may be identified in its departures from normal measures with much the larger number of these stations. In the remarks relating to distribution of temperature for the spring the differences of successive months at that season were seen to be an average of ten degrees for the eastern United States, and the like differences at Toronto for the mean of twelve years, from 1841 to 1852, are 10°.9 from March to April, 10° from April to May, and 9°.9 from May to June. The following are the normal temperatures assigned to this latitude, 43° 40′, and the measures of departure at Fort Preble, Toronto, Fort Winnebago, and Fort Vancouver, four points of the line representing the more important districts near this latitude:

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* Phil. Trans. Roy. Soc. 1853, p. 141, *et seq.* ("On the Periodic and Non-Periodic Variations of the Temperature at Toronto, in Canada, from 1841 to 1852, inclusive. By Colonel Edward Sabine, Royal Artillery, Treas. and V. P. R. S.")

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Normal temperatures for latitude 43° 40′..	32.8	34.7	40.1	50.2	58.1	64.6	68.7	68.5	61.5	53.8	43.2	36.0	51.0
Differences or anomaly at Fort Preble.....	—10.0	—10.2	— 7.6	— 7.3	— 5.3	— 1.5	+ 0.5	— 2.1	— 4.6	— 4.0	— 5.4	— 9.2	— 5.8
Do........do....at Toronto	— 7.8	—11.3	— 9.9	— 9.1	— 6.9	— 3.5	— 2.3	— 2.3	— 3.5	— 8.9	— 6.7	— 9.2	— 6.8
Do........do....at Fort Winnebago,	—13.3	—16.2	— 7.5	— 3.0	— 1.4	+ 1.0	+ 2.2	— 1.2	— 3.7	— 6.9	—11.1	—14.7	— 6.2
Do........do....at Fort Winnebago, reduced to sea level..............	—11.3	—14.0	— 5.5	— 1.0	+ 0.6	+ 3.0	+ 4.4	+ 0.8	— 1.7	— 4.9	— 9.1	—12.5	— 4.2
Differences or anomaly at Fort Vancouver, latitude 45° 30′.................	+ 7.7	+ 7.0	+ 4.0	+ 2.3	+ 0.8	— 2.0	+ 0.0	— 2.9	— 0.7	— 0.5	+ 3.3	+ 0.5	+ 1.6

An approximate reduction of the observations at Fort Winnebago to sea level is made at the rate of a degree for about three hundred and eighty feet of altitude. It is very evident, from these differences, that the contrast of American and European temperatures in the same latitudes belongs mainly to the low temperature side, and that the winter gives the extreme of difference, or anomaly. It is apparent, too, that there are defects in this assumed normal scale, and that it does not curve sufficiently, particularly for the lower months, to represent the natural or average land climates derived from all parts of the hemisphere, in this latitude. There is great reason to suppose that a series of stations on any parallel here would give the measures which might be taken as the normal degree of heat, quite as correctly as a series crossing the entire eastern continent, or as numbers derived from theoretical considerations in regard to the amount of heat distributed by the sun's rays on any parallel of latitude. For the purpose of a rough examination of this point, the following stations are taken nearly on this line, and about equally distant: Fort Preble, Fort Winnebago, Fort Laramie, and Fort Vancouver. The last two series are for defective periods, or those insufficient to remove the large measures of non-periodic variation which are found in every case, and in each of these December is evidently too cold, and January too warm. The temperatures at Fort Winnebago are reduced to sea level by adding one degree for three hundred and eighty feet of altitude nearly, or two degrees for the altitude of the post. At Fort Laramie the rule which obtains in Europe for decrease of temperature with the altitude, evidently will not apply at all, as the summer temperature, particularly, would by this rule of reduction exceed those observed anywhere at sea level near this latitude. An assumed decrease of one degree for about five hundred and seventy feet gives a result apparently satisfactory, or about eight degrees added to the observed mean temperature for every month. The four series combined, after these corrections, give a curve which differs from that of Dovè by nearly like measures of excess in summer and diminution in winter, and in this rude way confirms the view that the natural curve of temperatures for the continent is greater than that given by Dovè, and that the temperature anomaly of the extreme months is less here than the amount which has hitherto been assigned to it. It will be seen that in respect to this curve the absolute correction for altitude at Fort Laramie is unimportant, and that if now in excess, it only adds to the yearly mean of temperature.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Fort Preble	22.78	24.52	32.53	42.96	52.82	63.11	68.20	66.41	56.91	46.76	37.80	26.80	45.22
Fort Winnebago	21.52	20.50	34.60	49.20	58.66	67.63	72.95	69.31	59.83	49.90	34.14	23.33	46.80
Fort Laramie	38.92	40.49	48.70	59.49	68.00	79.23	86.59	85.67	76.10	62.80	47.72	39.87	61.95
Fort Vancouver	38.90	41.66	44.14	52.55	58.95	62.67	68.71	65.56	60.81	53.30	46.51	36.83	52.54
Mean	30.54	31.79	39.00	50.05	58.61	67.16	73.11	70.74	62.41	52.19	40.54	30.73	50.57
Difference from European normal scale	—1.26	—2.91	—1.10	—0.15	+0.49	+2.56	+4.41	+2.24	+0.91	—0.61	—2.76	—5.27	—0.43

These differences are mainly in the curve of monthly means, and they scarcely affect the annual mean for the latitude as determined by Dovè's empirical formulas. The normal mean, which is so far departed from at Toronto, is restored by the introduction of the other series, but the curve of monthly differences remains in marked contrast with those assumed for Europe. If the entire eastern continent were embraced, or the highly heated and dry areas similar to those of the western interior here, it is evident that a higher summer curvature and a lower winter depression would be found for the eastern continent as a whole.

There are too many imperfect data in this comparison to give it more than negative value, or to show that, with existing records, a positive standard cannot be constructed. These series also show that the range of non-periodic variations is everywhere such that an extended period of time is more important than any other consideration, in determining any one of these principal points in regard to the curve of temperature, and its distribution for the year.

The isothermals of the chart for the year are generally widely separated for differences of five degrees. East of the 95th meridian they are parallel with the lines of latitude for districts of moderate altitude, except at Lake Superior and on a portion of the Atlantic coast from Fort Monroe to Florida, and at these points they curve northward. West from the 95th meridian those above the 40th parallel of latitude would go northwest, with proper corrections for altitude, and those below, though curving north in the interior, would return in a singular manner along the coast of California to points three or four degrees of latitude south of their position in the Mississippi valley. Between the isothermals of 50° and 55° the same large area occurs on the Pacific coast north of Monterey and San Francisco, which is seen on the thermal charts for spring and autumn, and the isothermal of 50° for the year would go north of the 50th parallel before striking the coast.

The mountainous interior is unquestionably more highly heated than any known district of the same altitude, as may be seen by applying rules of reduction to the means for the year. With any number whatever (as 570 feet) the mean at Fort Laramie becomes as great as that at Fort Monroe, or 58°; but Forts Massachusetts and Defiance, in New Mexico, fall below the temperatures of their latitude at the east, and only Santa Fé, with others in the Rio Grande valley, exceed those temperatures. At Salt Lake, Cantonment Loring, and other posts of observation northward, the highest rule of reduction would be required, as at Fort Laramie; and it appears that two or three stations of the greatest altitude in New Mexico alone permit the use of a rate of reduction at all approximating that found to apply in Europe. At Fort Massachusetts a rate of one degree for 475 feet would be required to conform its temperature to that of Fort Monroe in the same latitude on the Atlantic coast; and if the western part of the continent were supposed to be warmer by five degrees of latitude, the reduction would be one degree for 330 feet. But at Fort Laramie and Great Salt

Lake the recorded temperatures are already higher than those of either coast at the same parallels, though their altitudes are 4500 and 4350 feet. In the southern part of New Mexico, at an altitude of 4000 to 4500 feet, the temperatures are also nearly as high as at either coast, being, in fact, above those of the Pacific, and below those of the Atlantic, by equal differences.

It is obvious that the surface peculiarities of the elevated districts of that portion of the continent are favorable to a great accumulation of heat, but this arid character may be itself due to the altitude, and the heat might not be greater than elsewhere in the absence of the mountains. With the existing aridity the effect of altitude may only be neutralized, one modification of temperature compensating the other; but there is no reason to suppose that these districts would have less heat than similar positions in Europe, if the country were generally as near the sea level; and in that case all the isothermals would curve northward from the Mississippi valley. The rate of correction for altitudes would then be something more than twice the number of feet for a degree in every case here, than in the rule applicable in central Europe.

These results show that the constitution of the surface and the general configuration, together, perhaps, with the degree of humidity as a possibly separate element, control the temperature in a very great degree, and more, within certain limits, than latitude and altitude. Humboldt observes the increased mean annual temperature of the plateaux of the Cordilleras in tropical regions, and gives the measure of excess over the temperature of mountain declivities at the same heights as 2°.7 to 4°.1. We have no vertical altitudes to compare for the interior posts here, but if the recognized measures of the Atlantic coast of this continent and of Europe are assumed, the excess of temperature on the Rocky mountain plateaux is several times greater than these numbers. There is scarcely any district where the mean temperature at considerable altitudes might be taken for that at sea level for a higher latitude.

The distribution of heat for latitude is directly associated by Humboldt with that for altitude, though there would seem to be little parallelism here with these relations as they exist in Europe. On the Pacific coast here the decrease of temperature with the latitude is very slow, the isothermals of 65° and 50° for the year being separated by at least twenty degrees of latitude; or, using positive points on the coast, San Diego and Sitka, separated by twenty-four and one-third degrees of latitude, differ 16°.6 in mean annual temperature—a decrease of 0°.68 for one degree of latitude. In central Europe this decrease is 0°.9 for one degree of latitude,* but there are no similar points here at or near sea level to compare, except in the Mississippi valley, where the decrease is thirty degrees of temperature for eighteen of latitude—nearly 1°.7 for each. This is also the rate between the extreme posts of the Atlantic coast, including the whole peninsula of Florida, as previously assigned for the distance from Boston to Charleston by Humboldt, who gives in addition, the rate of 1°.6 for the coast from Boston to Labrador.

The interesting features of the relation of these two conditions of distribution in the interior cannot be followed further here, but they deserve attention more minutely. There is very little decrease of temperature for certain measures of latitude and altitude over a large district.

The influence of the cold coast of California appears very decidedly in the position of the isothermals for the year. The cause of this phenomenon has been sufficiently explained in connection with the summer illustration, and it may be disposed of very briefly here. It is a great and remarkable anomaly even when exhibited in the mean temperatures for the year, and the cause of it, with the like cold current and mass of water off the coast of South America in the Pacific, shows the existence of most extensive oceanic circulations and interchanges there. But no mass of cold waters could produce so great an effect upon land climates as are found here, if there was not a great interior rarefaction, originating and intensifying the winds from this cold sea inland, and the two causes produce a cumulative result which has no parallel.

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* Cosmos, article Climatology.

The range of mean temperatures for the year in any series is very large for every part of the United States, and it proves that the period of a year is far from being the whole time embraced by the greater non-periodic variations, and that, whatever the period of these extremes, any single year may be distinguished by several oscillations having the same direction, either above or below the annual mean. Either as months or seasons we may readily point out conspicuous instances. In the series of thirty-three years at Fort Columbus, New York, the year 1836 is distinguished as that of lowest temperature, being four degrees below the general mean. Every month of the year was below the mean, though in unequal measures, and those most extreme were February and October. The previous year and that next following, 1835 and 1837, were the next lowest, each being more than two degrees below. Two months only, and the same months, October and November, of each of these years, were at or above their average temperatures respectively; and with these exceptions the whole period, including the last five months of 1834, or nearly three and a half years, was decidedly below the mean temperature. A similar general result occured at Fort Snelling for the mean of these years and for their warmer months, but the colder months were variable and the difference for the year less; and this was the case in every part of the United States, with some irregularities, and generally with greater measures of variation.

There is no other conspicuous group of cold years in this period, though 1823 and 1824 and 1843 and 1844 are together below the mean at some posts—the last two quite generally. Two or three years near 1812 are, however, known historically as cold years, and a reference to records of that date shows them to have been more extreme than those of 1836, &c.*

The variations of a non-periodic character toward higher temperatures have not been noticed for any part of the year, and they may be briefly referred to here, though excess of heat is a phenomenon naturally preceding a great diminution of heat, and if any appearances of progressive movement or periodicity were apparent they should be associated with extremes of high temperature.

In the yearly means there are two groups distinguished by high temperatures, one from 1824 to 1830, inclusive, of which 1825, 1828, and 1830 were the most marked years; and another period from 1844 to 1848, each of the years of which was nearly uniformly above the mean. The first of these periods is the most general, and it is quite conspicuous at the south and west; but the second is irregularly distributed, and the measures of excess belong to shorter periods. The most conspicuous single years at Fort Snelling are 1830 and 1846, and these are also everywhere so distinguished, 1825 and 1828 being next. On the Pacific coast, 1853 is marked as the warmest year of the period there observed; and the summer of that year was everywhere much above the average temperature.

The higher temperatures are quite irregularly distributed in respect to the seasons and months, and an analysis of any series would give results analogous to those indicated in the examination of the low temperature extremes. Generally, the coincidences of single months with the seasons and the yearly mean are more numerous than the contrasts for any year, as of eight cases in the period of 33 years at Fort Columbus, New York, of a mean temperature for the spring months two degrees or more above the general mean, six were coincident with like differences for the summer, autumn, and year; and the same proportions occur in comparing summer and autumn with other seasons and the year. There might be supposed to be two classes of these non-periodic changes, one less frequent and affecting longer periods, and another causing changes above or below the general line of these long periods, and belonging to periods of a month or less.

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* Dr. Holyoke's Observations at Salem; Cambridge Observation, by Professor Farrar. See also Dovē's Series of European Observations, Sabine's Analysis of London Observations, &c., for traces of correspondence in the first case in Europe. The years 1811 to 1816 were embraced in this case.

There are few instances of very high temperatures for any month in a cold year, or of very low monthly means in a warm year; and, though the succession of years is full of extreme contrasts in respect to months, there is some decided conformity in the relations of the successive months of any year of which the mean is particularly cold or warm. This is in part necessary consequence, it is true; but the point of importance is, that if any part of the year is marked by an extreme oscillation it does not find a compensating extreme in that year.

It may be of interest to trace some of the greater instances of high temperature occurring at Fort Snelling in their relations to other portions of the continent, as was done with the winter extremes of cold. The spring and summer of 1825 are together largely above the average temperature at this post, the excess belonging to every month from February to September. This high temperature was almost universally of the same degree and duration, the exceptions applying to one or two months only; as, at some posts in the south, April was at or below the mean, and in Maine the two extreme months were but very little warmer than usual. At the west, and in the central districts, the excess was greatest, and at Fort Moultrie least. The very high temperature of the winter of 1827–8, which was from seven to nine degrees above the mean for each month at the south, gradually disappeared at the northeast and west, and was not felt at all at several posts nearest Fort Snelling. In 1830 the whole year was warm, and July eight degrees in excess at Fort Snelling; the same month is noticed as "unprecedentedly hot" at Fort Winnebago, where it was near thirteen degrees in excess. This peculiar heat of July occurred at all the central districts to the Atlantic coast; but it was not felt at the northeastern posts, nor in so great a degree at the south as in the interior. In 1834 July had a high temperature at Fort Snelling; in the district above St. Louis the conditions were the same, but at Fort Gibson the greatest excess was in August, the mean of which was 88°.22, giving the highest temperatures anywhere recorded at that latitude in the interior. The heat of July was again extended through the central districts to the Atlantic at Baltimore and Fort Monroe, but was not observed east of New York. In 1839 April was eleven degrees above the mean at Fort Snelling, and as it comes between two months which were below, its progress may be traced with advantage. This extreme was the same in all the northwest—less marked south and southwest—and not appearing at all in Florida and Georgia; but it was partially felt through the central States eastward. It had no change of position towards any other month at any post.

There are other cases which may be traced with the same general result, and other points from which the examination may be made with a similar absence of any evidence of progressive movement or periodicity. In June, 1853, a very high temperature occurred in the central States east of St. Louis, which was not felt at all at Fort Snelling. The occurrence of extreme high temperatures appears to be of the same absolutely non-periodic character, and to have the same liability to fall in nearly equal measures on any district, as was apparent in the low temperature extremes.

The general range of mean temperatures for the seasons and extreme months may be given in tabular form for the more complete series, with that for the extreme months and the year:

Range of mean temperatures in the United States for the extreme months, seasons, and year.

STATIONS.		January.	July.	Spring.	Summer.	Autumn.	Winter.	Year.
Hancock Barracks, Maine	17 years.	16.0	8.7	6.4	6.8	7.2	7.1	5.0
Fort Sullivan, Maine	25 do.	14.0	9.9	7.7	6.8	4.7	7.8	3.7
Fort Constitution, New Hampshire	25 do.	14.0	9.0	7.0	7.4	5.7	11.9	6.7
Fort Independence, Massachusetts	17 do.	9.9	8.6	7.8	4.9	6.9	11.0	4.7
Fort Columbus, New York	33 do.	12.6	11.8	7.8	7.1	9.9	10.3	7.3
Watervliet, New York	31 do.	15.3	10.5	8.8	6.7	9.2	12.8	7.4
Alleghany Arsenal, Pennsylvania	22 do.	18.9	14.5	12.9	7.8	12.0	11.2	7.8
Fort McHenry, Baltimore, Maryland	24 do.	14.2	6.8	8.9	6.0	7.2	11.2	4.9
Fort Monroe, Virginia, (Norfolk,)	30 do.	16.9	7.4	10.1	5.9	7.6	16.0	9.0*
Fort Moultre, South Carolina, (Charleston,)	28 do.	18.3	6.1	7.1	7.3	9.5	16.7	6.9
Fort Marion, St. Augustine, Florida	20 do.	16.1	8.6	11.3	6.7	7.1	15.4	6.7
Key West, Florida	14 do.	12.6†	5.9	3.5	3.2	4.2	8.2	3.5
Fort Brooke, Florida	25 do.	17.7	6.8	6.8	5.4	4.8	11.9	4.0
Fort Barrancas, Pensacola, Florida	17 do.	18.2	5.3	7.1	3.2	4.5	9.7	3.0
Mount Vernon Arsenal, Mobile, Alabama	14 do.	14.2	6.1	4.7	4.3	5.6	6.8	3.5
Fort Pike, Louisiana	14 do.	10.7	6.2	6.2	3.0	7.0	13.3	4.8
New Orleans, Louisiana	20 do.	18.0‡	6.8	7.4	5.2	5.5	8.9	4.7
Baton Rouge, Louisiana	24 do.	15.4	7.1	9.3	4.8	6.9	11.1	4.2
Fort Jesup, Louisiana	23 do.	17.5	7.8	9.0	4.6	7.6	10.6	6.6
Fort Gibson, Indian Territory	27 do.	19.5	7.8	9.2	8.6	11.3	14.4	6.9
Jefferson Barracks, Missouri	26 do.	17.6	12.0	15.0	9.1	10.2	19.2§	7.0
St. Louis, Missouri	12 do.	14.0	7.2	7.2	4.7	7.4	7.3	3.7
Fort Gratiot, Michigan	17 do.	13.6	11.8	11.8	8.2	8.9	10.7	6.1
Fort Mackinac, Michigan	24 do.	12.3	10.3	8.1	5.8	7.9	9.9	6.1
Fort Brady, Michigan	31 do.	13.0	13.3	13.0	8.5	9.8	9.0	7.1
Fort Howard, Wisconsin	21 do.	14.5	11.8	9.2	7.6	9.9	16.6	5.1
Fort Crawford, Wisconsin	19 do.	19.6	10.4	17.7	8.1	9.2	16.4	8.9
Fort Armstrong, Illinois	11 do.	18.5	10.3	6.8	8.3	6.2	17.4	7.5
Fort Snelling, Minnesota	35 do.	27.9	14.6	17.3	11.0	10.4	16.0	8.6‖
Fort Leavenworth, Kansas	24 do.	24.7	10.0	17.8	8.0	9.4	13.3	8.0
Fort Kearney, Nebraska	6 do.	19.9	5.2	5.8	4.1	7.0	13.0	5.3
Fort Laramie, Nebraska	6 do.	13.2	4.5	6.4	2.6	10.8¶	4.8	5.8
Fort Brown, Texas	7 do.	10.0	2.9	2.5	2.2	3.1	4.2	1.6
Fort McIntosh, Texas	6 do.	10.2	3.7	4.8	3.5	3.1	3.6	1.9
Santa Fé, New Mexico	5 do.	4.3	6.9	2.3	1.8**	5.0	3.7	0.8
San Diego, California	do.	3.7	6.9	4.7	2.7	3.6	2.6	2.3
Benicia, California	6 do.	6.9	4.9	4.6	2.9	3.4	3.2	3.2
Fort Vancouver, Oregon	6 do.	10.1	3.4	4.0	2.5	2.2	2.3	1.4
Fort Steilacoom, Washington Territory	6 do.	12.6	3.8	2.3	1.8	2.8	4.0	2.0

* 1828 and 1836 compared.

† 1851 and 1852 compared.

‡ 1828 and 1852 compared.

§ 1828 and 1831 compared.

‖ At Fort Winnebago, 1830 and 1836, differ 13°.1. At Fort Snelling the years are 1830 and 1843.

¶ 1852 and 1854.

** Two years, 1853 and 1854. Annual range also two years, 1853 and 1854.

The imperfect periods for the Pacific stations and those of the western interior, render them rude approximations to positive results. The large annual range is one of the most striking features of the table; and particularly for the Atlantic coast stations, as at Fort Columbus and Fort Monroe. The range is large, also, along the Gulf coast and in Florida, and it appears to dimininish equally toward each of the extreme stations of the Atlantic coast—Fort Sullivan, Maine, and Key West. In the vicinity of Fort Snelling the range attains its maximum, reaching thirteen degrees on the plains of Wisconsin; and the district stretching from this point through the central part of the United States to Fort Monroe, has probably near ten degrees of range of mean annual temperature in any period of the extent of twenty-five years.

The range disclosed in the Toronto series of twelve years is but four degrees between the years 1843 and 1846; but 1836 is elsewhere often lower than the first, and 1830 higher than the last of these, and the range of a period of twenty or thirty years is probably six degrees there instead of four. This is still lower than in the central United States southward, and lower than on the plains; and it is evident that the range is less, as a rule, in the lake district, and that it diminishes rapidly northeastward.

All the features of the range of mean temperatures show larger measures than would be anticipated, and the concurrence of stations in similar positions is required to confirm them. This concurrence is generally shown by the table, and those that appeared most likely to be in error were particularly examined and verified.

At the stations of New Mexico and the Pacific coast there is some reason to fear the existence of constant errors of observation, arising from the position of the thermometer, and from the frequent interruptions of the record; but the differences of the extremes of any series are evidently much less there than at the east of the Rocky mountains. Fort Laramie gives a much larger range for the same dates than Fort Steilacoom.

By the aid of the serial tables, recently published in Europe, the comparison of the distinguishing temperature periods of this series, with those of Europe generally, may now be very thoroughly made, and one or two citations may be introduced here. In the range of annual mean temperatures two series of observations of temperature in the interior of Europe, at Cracow and Riga,* bring the record down from 1795 to 1852, and in both these the warm years, from 1824 to 1828, inclusive, are distinctly marked as those of much the highest temperature. The year 1829 is there the coldest of a series of thirty-five years preceding that date, as observed at Riga; and 1837 and 1838 are the coldest of the series of twenty-seven years at Cracow, beginning in 1826. The years 1830 to 1836 are also there all above the mean temperature, while on this continent 1830 alone was so marked, the remainder, except 1834 in some districts, were much below the annual mean. The low temperature of February and March, 1843, which rendered the mean of that year below the average in America, was unknown in central Europe.

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* Annales Obs. Phys. Central de Russie, 1853. A series of 20 years at Pultowa, in southern Russia, latitude 49½°, has the warmest years in 1836, 1843, and 1848; the coldest in 1828, 1831, and 1840.

DISTRIBUTION OF RAIN,

OR OF

WATER FALLING IN RAIN AND SNOW.

THE mode of presenting the principal facts of this distribution is similar to that employed in the representation of the distribution of heat, the districts being defined in a general manner by the mean of the results at stations in similar positions of altitude and exposure. The quantity of rain is less easily defined in this manner, and the illustration less exact, than in the temperature charts in any case, and for many climates it could not be employed with sufficient precision to answer any requirement of positive science. In western Europe slight differences of altitude very largely affect the quantity of water falling in rain, and for the British islands and the northern coasts of that continent, as well as for the mountainous districts in the south and bordering the Mediterranean, there could scarcely be any accurate general illustration. A portion of the Pacific coast and western interior here shares in these contrasts and this irregularity without doubt, and for these districts any general illustration is only approximate; but for much the larger area of the United States, and for all portions east of the Rocky mountains, the distinguishing feature of the distribution of atmospheric precipitation in rain is its *symmetry and uniformity in amount over large areas.* The quantity has rarely or never any positive relation to the configuration of the surface which would identify it with the distribution of western Europe and the north Pacific coast; and, in contrast with these, it has a diminished quantity at the greater altitudes generally, and the greatest amounts in the districts near the sea level. It also differs from those districts, and from large land areas generally, in having a greater amount in the interior than on the coasts for the same latitudes, at least as far north as the 42d parallel of latitude. These two leading features of the distribution of rain in the United States are of great importance in any attempt at graphic illustration, and in their absence it would scarcely be possible to make any such illustration clear. They are of even greater importance in the discussion of a mass of results derived from positions widely distributed, and from observations embracing a succession of years, as they then have a symmetrical and associate character which permits the elimination of errors of every sort by combining results, and by treating them as a whole. The correspondence which belongs to like quantities must appear in some intelligible form in comparing results at any two stations, and this conformity, if found to exist, proves at once the reliability of the observations, and the existence of a general symmetry.

It will require but a brief examination of the records and results of observations to show that the graphic illustration undertaken in the charts is a true expression of general symmetry, and that if it is based on accurate records, embracing a sufficient period of time to remove the errors of non-periodic variation, it represents a physical fact as permanent as the lakes and rivers of a continent themselves, since if any slow progression of changes exists affecting the amount of water falling in rain and snow, an equal effect must be produced on rivers and bodies of water dependent on rains for their permanence.

The principal defect of these results is in regard to the period of time they embrace. The non-periodic variations of quantity are very great, and a series of many years is required to give a true mean, even for the year, and much more for the months and seasons. For most of the area the range, even for a period of three months, may descend to an entire absence of rain, and for single months this entire absence is quite frequent. For the year, the range is from the present means to less than half that quantity, and with such large departures a short period must necessarily fail to give more than an approximate result. The larger quantities of the eastern United States, and the vicinity of the Gulf particularly, are more affected by imperfect periods than other districts east of the Rocky mountains, and at the west a range of perhaps one-fourth of the quantities assigned to the several districts, should be considered as a possible change of any result by the use of a series of years of observation numbering twenty or more. This possible range, however, does not materially affect the relation of those districts to the eastern United States generally; and as the periods are nearly equal in the new districts, it may not sensibly affect the mutual relations there. In a district having an average of three inches of water falling for any period of three months, the variation will be proportioned to that quantity, and very far less than in a district of the Mississippi valley having fifteen inches for a like period.

The district embraced by the observations is, as said in relation to the distribution of heat, a complete and symmetrical area, occupying nearly all the temperate zone of the continent, and illustrating most of the important facts of rain distribution over such an area. It is far more valuable, even in regard to what it outlines, if the results are not of the rank of positive determinations, for this reason, than if the measures and illustration were for limited areas and isolated districts. The comparison of districts possessing such diverse features of configuration cannot fail to throw light on the remoter questions in regard to the sources of the supply of moisture to the continents generally, as well as to the sources of supply in this particular case.

The quantities given in the illustration represent the *mean of the areas* in which they are placed, and not, as in the isothermals, the measure at the limiting line. If the mean of the numbers marking two adjacent areas were placed on the line which separates them, the definition would be the same as in the temperature illustration. The quantities in both cases pass into each other by gradual transition, and the abrupt distinctions of shading and of boundary lines are employed only for convenience and clearness of illustration. In Johnston's Hyetographic or Rain Map of Europe, these limiting lines—designated *Isohyetoses* for the lines of equal annual amount, and *Isotherombroses* for lines marking the per centage of the quantities for summer on those for the year—are marked with their respective quantities, though their application to the areas enclosed by these lines is always understood.*

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* The designation of the distribution of rain as a permanent or constant condition has no single term as yet applied. Professor Johnston terms the illustration *hyetographic*, which is an appropriate expression for the map or chart itself. There is a term wanted, however, to express the *condition*, apart from any illustration, which, it is sufficiently apparent, may be regarded as one naturally of the most fixed and permanent character. The constant quantity of atmospheric precipitation for any area is one which cannot be expressed without the use of the circumlocutory phrase, *the mean of the entire amount of atmospheric precipitation of water in rain and snow, &c.* There is a class of analogous conditions belonging to the atmosphere, of which the first or general one, *aerial*, may be taken as a type, with an apparent improvement in this nomenclature. Their order would then be, the *thermal*, or temperature condition; the *hygrometric*, (*hygral ?*) the condition of humidity, or of suspended moisture, the *hyetal*, (ὑετός, rain,) or the general condition of atmospheric precipitation—the rain condition. Next to these is *electrical* as a general atmospheric condition.

There is, no doubt, some general deficiency in the measurements of the water falling in snow at the military posts, and the probabilities are that the results for the winter months fall somewhat below the actual precipitation of these months in every form. In some cases the entry has been made of the depth of snow in inches without converting it into water, and in these cases one-tenth of the recorded depth of snow has been taken as its equivalent in water. This rule is sufficiently near to accuracy for any general purpose, though for the southern latitudes it would give too small, and for extreme northern districts too great a quantity of water. The error of these measurements is, however, believed to be less, on the whole, than the error of records by amateur observers, especially in regard to imperfect measurement of small quantities in winter. The great mass of records of this latter class are obviously deficient in this respect, and with many, and perhaps most of such observers, it is the habit to measure the snows and to interpret this measurement in water by the best rule at their command, while the military records are made under precise regulations well adapted to secure correct results. In the annual summary it is believed that the small winter deficiency is compensated for by a natural full measurement of actual rains, and by the fractions being usually thrown in favor of full tenths and hundredths in the entries.

Direct error in the reading of the scales of the gauge rarely passes for a period of two or three months without detection, and all known excesses or deficiencies, as well as those on which a reasonable doubt is thrown by any evidence, have been so distinguished in the register. An error of the deduction and illustration derived from any modification of the actual record in this manner may thus be corrected by subsequent examination.

To perfect the analogies in regard to language the point has been submitted to Professor Turner, who concurs with Professor Johnston in the use of the root, *ὑετός* in preference to *ὄμβρος*, which is used, to some extent, by French writers, and from which we have *ombrometer* (rain-gauge,) ombrometry, &c. The shorter word *hyetal* is regarded as standing primarily on the same footing as *hyetographic*, and in its present use the analogy of the atmospheric conditions before alluded to, and the greater facility, perhaps, in introducing a short form of the word, have controlled the choice of *hyetal* over *hyetographic*. These terms are, at least, suggested for the consideration of those interested in the nomenclature of this department of physical science.

DISTRIBUTION OF RAIN FOR THE SPRING.

There is the same defect to be remarked in this season in regard to its identity as a single or distinctive period that was observed in the temperature distribution. For the interior districts, or central meridians particularly, it enters both winter and summer, and it then has greatly contrasted quantities of rain for the extreme months of March and May. When the observations on the plains of the Rocky mountains shall have been carried over all distinctive portions, and continued for a sufficient time, some useful divisions of the year into other periods may be made in this respect, and a more precise knowledge of the peculiarities of the several months may be attained. On the Pacific coast also, the division in rainy and dry seasons is generally the most accurate, and the commencement of the rains and the date of their close are necessary facts. The Rocky mountain districts have equally distributed rains, generally, and these, with all east of the 97th meridian, may be said to possess a very nearly uniform distribution of rain over the three months of spring.

The feature of uniformity just alluded to is one of the most important in this connexion, and as it affects the division of seasons, and serves to define the districts where those three months are not an appropriate expression of the desired result, it may be well to examine it here. For stations where the succession of numbers is nearly the same for the months from January forward, there is of course no change of an abrupt character to be anticipated in the succession of days. The period required to eliminate irregularities and extremes is so great that a combination of the results at stations of similar position may furnish a clearer mode of exhibiting the general facts than any list or number singly. In the following table the several natural groups are so arranged:

Northeastern District.

Stations.	March.	April.	May.
Hancock Barracks	1.84	2.83	2.95
Fort Sullivan	3.16	2.80	2.92
Fort Preble	2.92	4.14	5.05
Fort Constitution	2.16	3.44	3.43
Mean	2.52	3.30	3.59

Atlantic Coast, Central.

Stations.	March.	April.	May.
Watertown Arsenal	3.30	3.70	3.75
Fort Independence	1.53	3.72	3.35
Fort Adams	4.38	5.00	4.51
Fort Trumbull	4.67	5.63	3.60
Fort Hamilton	3.65	3.42	4.62
Fort Columbus	3.44	3.33	4.78
West Point	3.62	3.82	5.13
Fort Mifflin	4.63	3.44	4.90
Fort McHenry	3.86	3.56	3.71
Fort Monroe	3.33	2.80	3.64
Fort Moultrie	4.06	1.75	4.08
Mean	3.68	3.38	4.19
New Bedford ... 40 years.	3.60	3.50	3.70
Erasmus Hall, New York ... 23 do.	3.60	3.50	3.80
Philadelphia ... 28 do.	3.50	3.30	3.40

South Atlantic and Gulf Coast.

Stations.	March.	April.	May.
Oglethorpe Barracks	7.11	2.91	3.43
Fort Pierce	3.01	3.85	4.27
Key West	4.21	1.55	2.58
Fort Myers	4.60	3.14	3.33
Fort Brooke	3.37	1.95	3.24
Fort Barrancas	5.87	2.94	4.05
Mount Vernon Arsenal	4.59	4.21	4.62
New Orleans	3.90	3.29	4.10
Baton Rouge	4.68	5.22	5.18
Mean	4.59	3.23	3.87

The results just given embrace the whole coast of the United States on the east and define three districts; one north of Boston, in which the amount increases from March to May; another central, at New York and Philadelphia, in which the quantities are very nearly equal; and that at the south which is quite irregular, but with the greatest quantity in March on the whole. The last has also an anomalous deficiency in April at most of the stations, but it appears only in very small measure west of Florida, and it may be caused by irregularities belonging to short periods. Taking the Atlantic coast as a whole, the same amount of rain may be anticipated for every day of these three months—such being, very accurately, the relation of results from Boston to Charleston, and the extreme districts differing slightly in opposite directions.

In the southwestern interior there is a rapid increase in amount from March to May, and this is also the case at all points west of the Mississippi and north of Cincinnati. At Cincinnati, Louisville, and Huntsville, Alabama, records for periods of ten years and more give nearly like amounts for each month, but the districts north and west, which are very fully represented by the military posts, show increasing differences between March and May in going westward. The measures at the four stations following will show this fact:

Stations.	March.	April.	May.
Fort Snelling	1.30	2.14	3.17
Fort Leavenworth	1.61	2.74	3.62
Fort Kearney	1.55	2.68	6.57
Fort Laramie	1.37	1.93	5.39

For all but the stations here given the distribution is essentially the same as on the Atlantic coast, the quantity being controlled by the profusion of the storms or rains, rather than by the absence of rains. There is no period free from rains, and no interruption of the constant atmospheric precipitation of moisture. On the plains, however, the deficiency of rain, in the first half of the spring, is so great that it has some general analogy to the division in wet and dry seasons; yet no distinct points of such a division appear in the records, and the great increase in the last month is more in profusion than in frequency. The whole of the eastern United States may, therefore, be designated as an *area of constant precipitation*, and where this is not equal throughout in quantity, it differs in proportions only.

The increasing profusion in the districts west of the Mississippi is important in many respects, and it gives an appearance of periodicity to the floods of the great rivers of the plains. It is, however, very much subject to non-periodic interruption and variation in quantity, and though periodic in a certain general sense, it is not similar to the distribution in tropical districts and on sea coasts, which is usually so designated. The rivers tributary to the Mississippi from the west have generally a flood in May; and the first decidedly summer-like temperatures of this month are accompanied by profuse and deluging thunder-showers. Sometimes these are deferred till June, as at Fort Riley, in 1854, and at the posts of the plains generally, in 1850. In 1853 the profusion in May and April is quite conspicuous. The floods from melting snows do not very largely influence the rivers of the great plains, in the lower portions of their course at least, though they affect their sources more or less, and those originating in the loftier mountains very largely. The evaporation and diffusion of water in these long and shoal rivers is very great; and even the Missouri is said to gain little or none in volume for many hundred miles of its course below the mouth of the Yellow Stone. The Platte, Arkansas, and Canadian, are all of the class of shoal rivers; with their channels often bare, in long reaches, for months together, at any season. The floods of these rivers do not occur in any marked degree until the profuse rains of spring and early summer set in; and the snows of the mountains, at their sources, disappear too early to add largely to their volume at this time in the lower portions, though Frémont found the South Platte, at the 104th meridian and 4,000 feet above the sea, much swollen by melting snows at the first of July.* The records at the posts situated on and near these rivers of the plains, contain few notices of their condition in regard to volume, yet there are some that may be cited for these months and for June. At Fort Leavenworth, on the Missouri, the river is noted as "high" on the first of June, 1851, and as "very high" during each of the spring months of 1853. No other note, for these months, is made there during the last six years. At Fort Kearny, on the Platte, no direct notes appear for this period—it is apparently always low in April, and full in May and June. It is the same at Fort Laramie, though the Laramie river is noted as high two or three times in May and June. At Fort Riley there was a great flood of the Kansas river from the 1st to 15th of June, 1855. At Fort Atkinson the Arkansas river is noted as very low in April and May, 1851; on May 26th, "Arkansas river nearly dry, a narrow channel only a few inches deep;" on May 30th "the river below is perfectly dry for many miles." In the first days of June, 1851, there are several notices of a rise of a few inches, "depending, no doubt, on the melting snows of the mountains." At the close of this month it was again very low and dry.

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* Exploring Expedition, 1843-4.

These imperfect notices are perhaps sufficient confirmation of the view that the melting snows rarely form floods in these rivers, or preserve their volume uniform, and that the rains of spring and early summer are quite irregular, and at times quite profuse, sending considerable floods to the Mississippi from the drainage of these plains.

The plains rise so gradually to the great altitudes of the Rocky mountain plateaux, that the contrasts in the quantities of water falling are not so great on the east of these lofty mountains as elsewhere, near these latitudes. The precipitation changes only by becoming more constant and regular, for the high central plateaux, at least, and it is not so much interrupted in spring and summer by long periods without rain. But this high belt of constant rains is very narrow, scarcely reaching to Santa Fé on the south, and breaking off at the Colorado and Salt Lake vallies on the west. Northward it stretches along the mountains, but it evidently does not embrace the vallies or plains of either branch of the Columbia. There are but two or three posts on this plateau, Fort Massachusetts, Cantonment Loring, and perhaps one or two other temporary posts of northern New Mexico; and the experience of surveys and expeditions must be relied on to indicate what the rain distribution of these districts is. All these accounts concur in remarking a regular succession of rains and snows through the months of spring, as in the eastern United States.

This mountain district of equally distributed rains has some detached extensions toward the Pacific coast, one or two of which may be cultivable and valuable. From the north the Cascade range, and its slopes in Washington Territory, are of this character, and perhaps the immediate coast hills and the island of Vancouver. On this northern coast of Oregon generally, the rains are periodical in degree, rather than in absolute cessation in summer, and it thus has an intermediate rank, and may be said to be both periodical and constant in a certain sense. The mountainous portions of southern Oregon have rains in summer, or equally distributed rains, also, but all the plains, valleys, and coasts, are here strictly periodical. The Sierra Nevada of California has little summer rain, and its elevated districts seem rather to prolong the rainy season of the coasts than to break its general character, and to render the distribution uniform. A portion of the interior, or Rocky mountain system, not before referred to, furnishes other districts of this constant character—one of limited extent south of the Great Salt Lake, and another in the Zuñi district of the Sierra Madre, and on the extension of these mountains toward the Gila and Colorado rivers. Here the districts of constant precipitation border on those which reverse the general features of the area of the United States, in having the dry season and little rain in winter and spring, and the true rainy season in summer, as in many tropical climates. The Gila river separates the districts so distinguished; and south of this river and its wide half-desert basin, and west of the Colorado of California, the precipitation is wholly in periodical rains.

The general features of the periodical rains of the Pacific districts are that they belong to the winter half of the year, and that they occupy a period of variable length, regularly increasing with the latitude, and generally equally extended before and after a middle point in January. For the most of this region there is also a partial, and in some instances a complete, suspension of the rains in January and February; constituting, in some degree, a double rainy season for the districts of California which have the least rain. This feature is not rendered sufficiently clear by our present knowledge of these climates. At the coasts of Oregon the rains set in earlier and continue longer, but they exhibit the same general phenomena as in California, and are attended by winds having the same direction in all cases and at all periods. As they embrace at least one month of spring at all points, these general features must necessarily be alluded to in this connexion, and so far as they are concerned no reference will then be necessary in a subsequent case.

The rainy season of California and the Pacific coast is usually marked by profuse as well as continuous rains, especially for the northern districts and Oregon. On the coasts and lower valleys of the south there is no marked profusion, but the mountains here have very profuse rains, and the whole course of the Sierra Nevada is so distinguished. At Fort Yuma the rains occur in November and December mainly, with some instances in February and March, and again in July, August, and September. This last period appears to be associated with the summer rain of Mexico, and to be a casual extension of these rains beyond their proper field on the mountains of Sonora. At San Diego the rains commence in November, and are most profuse in December; they are partially interrupted in January, and are then continued till May, and occur early in June. December, February, and a part of March, only, give the average quantities falling in like months in the eastern United States. Such is the case on the whole coast south of San Francisco, and in the San Joaquin valley the only difference is that the months of December and March sometimes have very heavy rains, measuring fifteen inches or more for a month. The same features belong to the Sacramento valley. No rain falls in the three months of summer in any part of California, except in rare instances in the extreme north, and at Fort Yuma, as before noticed.

At Fort Orford, and for the whole of the Pacific districts of Oregon, the relation of quantities is similar to that in California, except that there is no partial suspension in January, and that the fall does not cease entirely in the summer months. The winter rains are here very profuse, as well as quite continuous for many days, and they are often continuous for nearly every day of a month. East of the Cascade range of mountains the quantities are much the same as in the great valleys of California, all the measures being small and the summer proper quite destitute of rain. There is but one military post which represents this interior district, Fort Dalles, and at this there are moderate rains in each month of spring, and they do not absolutely cease in summer. On the great plains of the Columbia and its branches the summer rains are wholly shut off.

The rains of the great basin of the interior are least known, as positive measurements have but just commenced there. At Great Salt Lake the spring months have frequent rains, and it may be that much of the northern portion of the basin may be similar, and that it may be more nearly identified with the districts of constant precipitation, or of equally distributed rains, than with those of periodical rains for this season. In summer they probably cease entirely, and in the southern part of the basin they must always be very small in quantity.

The share of the precipitation of spring which falls in snow is a point of general interest, which, however, it would be somewhat difficult to define with the desirable precision. North of the isothermal of 32° for March, most of the water falling in that month is in the form of snow, though rains occur in about the same number and quantity as in the months of winter. Nearly half of the precipitation for April is also in snow in this district, or north of the 43d parallel, and there are instances of snow, sometimes in considerable quantity, in May. Snow may occur in March over nearly the whole of the United States east of the Rocky mountains, except Florida, though the quantity is not large in any case south of the 40th parallel. In April, there are instances in almost every year of much water falling in snow in the elevated districts of the Atlantic States, as far south as the latitude of Washington. The snows of this month afford as large a quantity of water, usually, as those of the previous month, and they occur in the great general storms peculiar to the eastern United States in the spring months. In May these storms occur at the great lakes, and eastward north of the 42d parallel, but not elsewhere, and even there they do not often afford a heavy fall of snow.

On the plains the spring snows are much less abundant than in the Atlantic States, the number of storms not only not being so great, but the volume of water falling in snow being much less in any case than in similar storms east of the Mississippi. The earlier months of spring are conspicuously dry in these western districts, as may be seen by the various forms in which the storms and their quantity are noted in the registers, and though the last month, May, is often marked by heavy rains, the season generally is more free from heavy storms, of either rain or snow here, than in other parts of the eastern United States.

On the Rocky mountains, and on the greatly elevated plateaux belonging to its general districts, there is a large precipitation in snow during each of the spring months, and at the greater altitudes these storms are continued quite through the summer. There are many summits on which there is perpetual snow in the neighborhood of the Parks, and in the mountain systems south of the South Pass, and on all these the summer storms, which break as showers of short duration on the plains and valleys, fall as equally profuse snows. The abrupt and detached mountains of the great basin receive a large fall of snow in these months also, and the changes of temperature are so sudden at these altitudes that the storm may take the form of snow on mountains but little elevated, and where, as is usual in May in the Great Basin, the temperature of the valleys is approaching summer heat.* Very little is known of the central and southern portions of the Great Basin in this respect, but the whole of its great area, north of the thirty-seventh parallel, is undoubtedly quite uniform in its configuration, and in this feature of the spring climate.

The mountains of Oregon and California are similar in the quantity of snow they receive, or in its continuance as the leading form of precipitation in these months. In California and the south of Oregon there is some appearance of a duplication of the rainy season in the greater profusion of rains and snows in March than in January, and on all the mountains which so far arrest the sea winds as to render the plains east of them arid, the fall of both rain and snow is very great in this season.

The number of days on which snow is noted at the various posts, for these months, may be readily taken from the Register, and from their examination it appears that the average number on which snow falls in March is eight to ten in the most northern districts of the Atlantic States and in the lake district, with half this number for April, and perhaps two for May, at the same posts. At the latitude of Baltimore and St. Louis the average is two to three days for March, one for April, and none in May. At Forts Towson and Moultrie, latitude 33° to 34°, the instances in March average but one in two years, with none in other months. In northern New Mexico, and in Oregon, there are, in some years, several days of snow in March, as in 1852 in Oregon, particularly; but the number is generally small, and it is only at the most elevated posts that they occur in April and May. No reliable average could be given for these districts as the period of years is insufficient, and the diversity of positions is too great to permit the combination of the results at separate posts.

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* Frĕmont's and Stansbury's Reports; Beckwith's Survey, 1854.

DISTRIBUTION OF RAIN FOR THE SUMMER.

The quantity of rain falling in summer in the United States east of the Rocky mountains is perhaps the most decisive distinction of its general climate from that of other similar areas in temperate latitudes, though we can only compare it fully with the western and interior districts of Europe, and some points in Asia. To derive our analogies from Europe alone, we must designate this as a half tropical distribution, and its frequent instances of great profusion, with accompanying high temperatures, often approach the tropical forms of precipitation very closely, if they do not quite institute them for short periods. It has been usual in Europe to designate the summer rains in their per centage on the quantity for the year, and as the interior of Russia is attained, this proportion amounts to nearly fifty per cent. It is generally less, by regular gradation, on lines southwestward from this interior, and on reaching the African districts the summer rains wholly cease. The same designation here would be less expressive of this actual distribution, as it would not represent the actual quantities with their relations for the single period so clearly. The departures here are from tropical, or almost tropical, districts, with twenty-five to thirty inches of rain for this season, instead of being from districts like those of northern Africa with none. The quantities of the interior would have nearly the same ratios to those for the year, however, as at Fort Snelling the rain of summer is 43 per cent. of the yearly quantity, and at several posts of this vicinity the proportions are nearly the same.

For the whole period of warm months, in which May and September should be included, the quantity of rain distributed over the Mississippi valley is comparatively very great, and there is no great area so far in the interior which presents a similar result. The quantities are absolutely as well as relatively large, and they considerably exceed those of the plains of the Atlantic coast in the same latitudes. The line of fifteen inches for the three months goes only to 38° of latitude on the Atlantic coast, yet it rises nearly to 44° in the Mississippi valley, and occupies a very wide area below the fortieth parallel. The measure of twelve inches is equally more extensive in the interior, though neither of these stretches upon the plains beyond 100° west longitude.

A contrast still more striking in comparison with the precipitation in Europe, is shown in the rapid diminution of these quantities at the more elevated posts generally, particularly in the Alleghanies and in Texas; though less so north of New York, where, for some part of the elevated interior, the quantity of summer rains is greater than in the plains. But the mountainous districts between the Mississippi valley at St. Louis and Cincinnati, and the Atlantic coast at Fort Monroe and Baltimore, show the most marked deficiency, which is clearly indicated at Pittsburg and Carlisle. Each of these posts gives but about nine and a half inches for the summer, and still lower proportions exist southward, as is shown by partial records in the interior of Virginia, which give but about eight inches for the summer.*

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* Reports of the Board of Commissioners of Public Works, &c.

The lake district also presents a somewhat anomalous result, in comparison with other interior portions at least, as it has less than the valley of the Mississippi in the same latitudes, though nearly the same as the Atlantic coast. The effect of these bodies of water is clearly to diminish the quantity of rain for the whole period of the warm season, though not so strikingly for the three months of summer as for other months. This deficiency appears very clearly in the mean for the spring, and it is conclusive proof that the local evaporation adds little or none to the quantity of rain of these interior districts. The valley of the Mississippi and its extension in the Ohio valley strikingly contrast with the rain fall in the lake districts, though this difference is probably due to greater profusion rather than to frequency of rains. The number of days on which rain falls is indeed considerably greater at the northern posts of the lake district.

The irregular character of the rains on the plains in summer has been alluded to in connection with the distribution for the spring. They are less in number and more irregular without having any periodical discontinuance, and the whole immense range, from the thirty-first parallel to the northern boundary is nearly uniform in this respect. On the Llano Estacado of Texas there is the least rain probably, and next is a belt along the Canadian river which has more than other districts, as is apparent from the accounts of those who have traversed it, and from the configuration and cultivable character which the districts at each extremity are known to have. The Wichita mountains extend further west than other elevated and well watered points on the plains, of which there are some near Fort Gibson; and the spurs of the mountains of New Mexico reach eastward at Las Vegas and other points in a district with frequent rains in summer. The whole eastern slope of the Rocky mountains is still generally arid, and the loose soil and rapid evaporation dissipate the rains and diminish the effect of the fall of any certain volume, much below that of a similar rain fall on the retentive surface and soil eastward. On the upper plains of Texas and over all the plains west of 100° of longitude, irrigation is generally necessary to support cultivation which requires the summer for its growth, and in the valleys nearest the mountains at the west it becomes more decidedly so than elsewhere.

At the western border of these plains the illustration of the rain distribution becomes much less accurate in its expression of the actual condition than before, and it can only be taken as an approximation toward this condition. The whole area is so much broken up by mountains, that great profusion may alternate with entire absence of rain, for the summer at least, on valleys and mountains in the most immediate proximity. Generally, the valleys of New Mexico have little or no rain in summer, and the mountains a large quantity, and this is gathered, as in the mountainous regions of Europe, by local formation of clouds with profuse and perhaps violent rains when no general clouds are formed and no rain falls elsewhere. Such is, to some extent, the case for the whole of the Rocky mountains, and for the higher mountains of the Great Basin, and of California and Oregon. But there is some value in an illustration which expresses a rude average of such results, and the fact that rains are profuse on the high mountains of a district is important to the necessities of occupation and of transit, if not to cultivation. The construction of tanks and reservoirs which may receive accumulations from such sources may be resorted to, and irrigation from temporary mountain streams answers a valuable purpose in the existing cultivation of some localities of New Mexico and Sonora.

The district south of the Gila, including the northern part of Sonora, and the recently acquired territory of northern Mexico, exemplifies this feature in a very striking manner. This region participates in the summer rains of Mexico to its extreme limit near the Gila, and sometimes to Fort Yuma. The mountains in view of this post exhibit frequent profuse and local rains, and these furnish supplies in otherwise arid districts, of the most abundant character for filling the natural tanks—(*tinaja, altas tinajas,* high tanks,*) which exist there in singular adaptation to the wants of the country. These already supply many uses in the wants of surveys and expeditions, and in the actual occupations of a permanent population. The clear atmosphere preserves the waters so accumulated from the changes they would undergo in other climates, and they remain fresh until actually exhausted or evaporated.†

The district known to receive the greatest amount of this local precipitation in New Mexico has been designated as receiving an average of fifteen inches for the summer; and ten, eight, and six inches are assigned to surrounding districts of a similar character. At some of the posts very little rain falls, and they are usually located in valleys much below the general level. Nearly all, however, are in districts having a medium fall of rain, and not in the driest localities. Fort Massachusetts, Santa Fé, and others, are much above the general level of the Rio Grande valley; Albuquerque is in a valley wider than usual; and only Socorro, Fort Conrad, and El Paso represent the quantity in the more immediate Rio Grande valley with sufficient accuracy. The quantities of the chart are, therefore, a mean intended to represent the general level as nearly as possible, and they are neither so much as falls on the higher mountains nor so little as the average of the table lands.

The table lands from the Rio Grande to the Colorado along the Gila river have very little rain in summer, and they form the boundary between the regular summer rains of northern Mexico and the characteristic summer rains of the temperate latitudes. Some portion of the mountains at the north of this river exhibit a frequency of rains nearly approaching those of Mexico; and at Fort Yuma the occurrence of rains in July and August, after two or three months of absolute suspension, shows that the summer rains have a partial development at some seasons there. There is a very little, also, at San Diego, and on the southern point of the Sierra Nevada and its prolongations near this point; but in the greater part of California there is no rain in the three months of summer. There is, apparently, none also in the greater area of the Interior Basin. The wide desert-reaches between the Sierra Nevada and the Colorado river, with the upper portion near Humboldt river, and its extension southward east of the Sierra Nevada are known to be nearly if not quite destitute of rain at this season. Very little is known of much of this great region, however, and there may be mountain ranges, like those of the Wahsatch and Humboldt river, which have local rains similar to those of New Mexico.

On the Sierra Nevada generally there is very little rain in summer; though for this conclusion the general impression derived from official reports, including those of surveys, is the reliance, rather than the positive record of observations of this particular point. In some instances personal observation assures us that the atmosphere is remarkably free from clouds and all forms of precipitation at this season. It appears probable that none of the mountains of California and the coast precipitate any considerable quantity of rain in summer; and the whole class evidently differs very greatly from the mountains of New Mexico in this respect. For other portions of the year these proportions are either partially or wholly reversed, as they certainly are in the winter rainy season of California.

There are anamalous features in the distribution of the summer rains on this part of the continent which cannot yet be properly presented. Its high mountains are generally more dry than those of Europe, and it is only at the highest mountains of New Mexico, at eight to twelve thousand feet above the sea, that we find rains similar to those of the Pyrenees and the northern Alps. The Italian Alps are more abundant in rain than any of this American region, and there is strong evidence that this difference belongs to the general distribution, and not to differences of configuration. The latitudes corresponding to the position of the mountains of California and the Great Basin are found in Africa and not in Europe, and generally this belt, which is a belt of calms at sea, is one of desert areas for the continents of the northern hemisphere. Considered in this light, the profusion on the mountains of New Mexico becomes exceptional, though we should find the analogies of Europe in Oregon and British America. It is quite clear that the profuse precipitation characteristic of the Mississippi valley and Gulf coast in summer, does not belong to the western half of the continent, irrespective of any causes in the altitude or latitude which might diminish it, and that this excess at the east has some local origin.

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* The term is applied by substitution, its literal signification is a *wide-mouthed jar for catching rain.*

† The writer is indebted to A. B. Gray, Esq., who has surveyed much of this district; to Dr. R. O. Abbott, U. S. A., for some time stationed at Fort Yuma; Lieut. Parke, Top. Eng'rs, Major Steen, and others, for facts of personal observation in this interesting district, on the points referred to in this connection.

We know little of the quantity of rain falling in British America and other parts of the north, the measurement at Sitka, Russian America, being almost the only one beyond the Canadas. At this point the quantity of rain in the summer and autumn is very great, and from the evidences of the records of northern Oregon we may suppose the whole of this coast to receive a large precipitation in summer.* How far this extends toward the interior is an important point bearing upon the distribution over the great northern plains of the United States, and for which we have no records north of Forts Laramie and Kearny. Whether the northern ranges of the Rocky mountains interrupt the rains almost entirely, as they appear to do in the middle latitudes, is not yet ascertainable, and we know only that at the Red river of the North the summer rains are abundant. The measure of ten inches appearing at the extreme posts in that direction may undoubtedly be extended to Lake Winnipeg, and perhaps to the Saskatchewan valley. On the upper Missouri, however, there is known to be a great deficiency of rain in the summer months at times, and a large part of the great area partially enclosed by its long curve is set down as an arid and uncultivable district by explorers. Its amount of drainage is too small to permit the supposition that it is otherwise, as all the tributaries of the Missouri from the west and south below the Powder Horn river,—or the last of the series near the Yellowstone, and of which that river is the principal,—are small and comparatively unimportant streams, belonging to the class of shoal rivers of the plains, and falling off to a very small volume in summer.†

The extreme quantities of rain measured for this season in the various districts have a great range, and the greatest quantities found in the tables are approximately placed on the chart. These are still more remarkable as departures from the averages than the like measures on the spring chart, and it is a characteristic of the climate that excessive falls of rain, with phenomena resembling the water spouts at sea, may occur at any point of the interior, and that deluges of rain do frequently fall over large districts as well as at small localities at this season. Near New York *twenty inches*

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[*] "The climate of Sitka is warmer than that of Europe on the same parallel. The cold of winter is neither severe nor of long continuance, but the atmosphere is charged with vapors whose condensation occasions almost constant rains. In the month of July the sun is seldom visible more than three or four days, and then only for an instant. The humidity gives astonishing vigor to the vegetation," &c.—*Richardson's Climatology of British America.*

[†] Lewis and Clark notice particularly the color and high temperature of the waters of these rivers, their quantity of clay sediment, and other evidences that they rise in clay plains, and not in mountains. Later explorers speak of the same characteristics, and notice that they are unexpectedly small.

(August, 1843) have been measured in a single month of summer, and the maximum of twenty inches assigned to that vicinity on the chart is intended to express a general average rather than the maximum observed at any one point. A comparison of the records at several posts for any month marked by an excessive quantity will, however, usually show that the effect is not confined to a small locality. In June, 1853, Forts Pierce, Key West, and Myers, Florida, have a great quantity of rain—nearly 30 inches for the first, 18 for the second, and 25.5 for the last. At Fort Brooke the great measure of 54.6 inches appears in the summer of 1840, but there is no record to compare with south of Fort Monroe, which has 30 inches. At Fort Pike the maximum is 53.8 inches; but, as this does not appear elsewhere, the highest quantity at Baton Rouge is taken as the representative of the district generally. All the posts of the Mississippi valley show a very high maximum, and this extreme quantity appears to be directly associated with the tropical temperatures so frequently found there for long periods in summer.

At the lower point of the coast of Texas the rainy summer of the east coast of Mexico approaches both the arid summer of New Mexico and upper Texas, and the equally distributed rains of the eastern United States, which extend over a large share of Texas. At the lower Rio Grande the records of 1850 to 1852 would show a greater identity with New Mexico than with either of the other districts; but in the records subsequent to that time, and particularly for so much of 1855 as has been observed, the leading characteristics are those belonging to the coast at Tampico, or to New Orleans in a wet year. This result places the locality in its most natural association, and shows that it may have a considerable range of climate, at times identified with that of each of the three on which the district borders.

DISTRIBUTION OF PRECIPITATION FOR THE AUTUMN.

For the area where the graphic illustration of rain distribution is most clearly expressive of the actual condition—that east of the Rocky mountains—there is less contrast in the quantities for the various districts in this than in any other season, or period of three months. The measure of ten inches, which is so general for all the charts on the Atlantic coast, belongs to a much larger proportion of this area than in other cases, and there are but two or three small districts having larger measures. The three warmer points of the Gulf coast which are half tropical, and which so uniformly have a large precipitation for some part of the year, all now go nearly as high as fifteen inches, though the records of southern Florida and of the posts near New Orleans are for imperfect periods. At the mouth of the Rio Grande the quantity is clearly greater than at any other season, and this appears to be caused by an extension of the rainy season of summer into September and October, or rather by its occurrence at that point in these months principally, instead of being confined to the summer months proper, as in some parts of Mexico. On all the eastern coast of Mexico September is one of the rainy months, and at Vera Cruz the quantity falling in it is nearly as great as in any other month.* This development of the rainy season is confined to the coast, however, and it is only at Fort Brown and Corpus Christi that it may be identified as having any features not common to the equally distributed rains of the Mississippi valley.

On the coast of Oregon the periodical rains occupy a large share of the three months, beginning before the close of September and becoming quite continuous through the latter part of October and in November. At two posts of the immediate coast, Fort Orford and Astoria, the quantity is twenty inches, and at the partially interior post of Steilacoom, fifteen inches. At Sitka the mean for two years is thirty-four inches, and it is evident that the humidity increases rapidly along the whole coast from California northward. The periods are not sufficient to give reliable mean quantities, however, and it can only be generally stated that the Pacific coast north of 42° of latitude is characterized by profuse precipitation through at least half of the three months of autumn.

The districts deficient in rain at this season are nearly the same as at other seasons. The plains,

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* The following observations of the fall of rain at Vera Cruz are given in *Mayer's History of Mexico;* the quantities for the months are for one year only, 1830, the mean for the year for 9 years.

	Inches.		Inches.
January	5.1	October	8.0
February	0.0	November	4.5
March	0.0	December	0.4
April	0.5	Spring	31.9
May	31.4	Summer	116.8
June	21.2	Autumn	51.4
July	59.7	Winter	5.5
August	35.9	Year	164.9
September	38.9		

with New Mexico, the Great Basin, and California are all comparatively dry. In California generally there is no rain in September, and for all parts south of San Francisco none in October. In this northern half the rains commence in October, though irregularly, and in the south in like manner in November. In California these rains are rarely continuous for these months, however, or reliable in successive years. They sometimes commence in the form of the more perfectly developed periodical rains of the northern coast, or of this district for December and March, yet they may be as extremely irregular as in any other part of the United States. If the distinction of this season were there the same as it substantially is for the eastern United States, or that of declining temperature and the cessation of vegetable growths, there would be an almost entire absence of rain belonging to it over the great interior and California districts. The heat of summer is, in fact, the close of vegetation for most of this region because of its aridity, and the autumn has little in common with that of the Atlantic States.

In the Great Basin, or in its best known portion near Salt Lake, and in New Mexico, the rains of these three months are quite equally distributed, and the actual quantities do not differ greatly from those at other seasons. The snows are early, also, occurring quite as soon as in the lake district of the east, though their quantity is unimportant except in the highest mountain ranges. This district has some forms of precipitation, either as cloud formation alone, or as slight storms of rain or snow on the mountains, during most of the period of these months; and though practically dry, as every season except summer is, it is so only by general deficiency of atmospheric moisture, and not in consequence of any periodical distribution. This portion of the interior is, technically, a district of constant precipitation.

On the plains the distribution of rain is somewhat the same as in the first two months of spring in respect to the frequency of long periods of fine weather, and in the generally small quantity falling. The autumnal periods of absence of rain are longer, however, and more general, reaching eastward over most of the Atlantic States, and sometimes characterizing nearly the whole area. The softened temperature and peculiar character of these dry autumnal periods form one of the most striking features of contrast with the same season in Europe, and these peculiarities almost always continue until broken up by a general rain. The steady atmospheric movement from the west which belongs to the middle latitudes of the United States, apparently favors the extension of these periods both in time and space. Dry and serene periods on the plains become even more dry and serene as the mass of atmosphere moves eastward at this season, and the changes of temperature are not only less, but there is also less rain to be precipitated by these changes.

These dry periods are fewer east of the plains, and the number of days on which rain or snow falls increases toward the Atlantic coast. Their characteristic features, as shown in the calms of several days continuance popularly known as the *Indian summer,* are, however, still well defined, particularly in central New York and Canada; but they are shorter, and they alternate with intervals of slow but constant rains, embracing many successive days.

In most of the Atlantic States, and particularly in the central districts, or from New York to Norfolk, the precipitation of autumn is mainly in general storms of two or three days' duration. The number of days of rain is less than at the northeast, and the intervals are usually serene. The actual depth of water falling is strikingly regular for the successive days throughout, as before remarked, and the proportion for each of the months quite uniform. There is some appearance of deficiency in September for part of the northern districts, as at the military posts of the New England States; but the most extended periods of record from other sources, as at New Bedford, Massachusetts; Albany, Utica and Rochester, New York; as well as the very complete periods at Fort Columbus, West Point, &c., show no noticeable diminution for this month. There is also no excess apparent in it for any point north of Fort Monroe in the eastern States.

The autumnal distribution of rain in Florida is more difficult of explanation than that for any other district, from its very great irregularity, and from the inadequacy of the periods of time during which observations have been made to reduce the prominence of the differences arising from this irregularity, and to establish any definite rule of the relations of the several months. The distribution at the posts of the south, in the Carolinas and Georgia, is also extremely irregular, and it appears that the non-periodic variations are greater here, in regard to the quantity of rain in these months, than almost anywhere else. The regular distribution of quantities at Fort Monroe becomes much broken up at Fort Moultrie, where each of the autumn months frequently falls off to an almost entire absence of rain. The mean of September is here also much the greatest, and that for November least. At Savannah, Oglethorpe barracks gives the same result, and a series of fourteen years' observation at Savannah, by Dr. Posey,* is quite the same in its distribution. Nearly all the posts of eastern Florida, and of the peninsula, give a like result; and a tendency to periodicity, or to a division of seasons in this respect, is certainly apparent for these short periods. The following numbers illustrate this point:

Stations.	September.	October.	November.
Fort Moultrie	5.83	2.44	1.79
Oglethorpe Barracks	4.07	1.95	1.19
Fort Marion	5.85	2.42	1.29
Fort Shannon	4.33	3.78	1.60
Fort Pierce	9.27	5.36	2.21
Key West	7.79	6.38	1.18
Fort Myers	10.29	0.98	0.69
Fort Brooke	6.23	2.40	2.00
Fort Meade	4.85	1.50	0.56
Cedar Keys	4.97	3.80	3.17
Fort Barrancas	5.25	2.41	6.05
Mount Vernon Arsenal	3.05	3.92	6.18
Baton Rouge	3.91	2.67	5.90

From these results it is evident that a comparatively dry season succeeds the profuse rains of August and September in Florida, and the portion of the Atlantic States bordering it, and also that this *does not extend westward as far as Pensacola.* The periods at this point, and at Mobile, (Mount Vernon Arsenal,) are for ten to fifteen years each; and if the features there were really analogous to those of eastern Florida, the fact could not fail to appear in the comparison of the similar dates embraced by these records.

By reference to the general tables it will be seen that there is a marked tendency toward the development of a winter dry season, even in the States next to Florida, and that in southern Florida this is quite decided and almost as fully developed as in the recognized tropical climates. As before remarked, however, there are great irregularities, and often quite contradictory results for single years. Thus, at Fort Moultrie there is one instance of near eight inches of rain in October; at Oglethorpe barracks and Fort Marion instances of six inches; at Fort Pierce, ten; at Key West one of nine and one of fourteen. The quantities in November are also often considerable, and all these alternate with months of none or of very little. In September these instances of profuse rains are more numerous and more extreme, in some cases exceeding twenty inches. The most prominent feature of rain distribution in Florida, in distinction from other parts of the United States, is this great irregularity, which prevents us from getting clear general views from periods of record embracing but two or three, or a few years.

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* Agricultural Patent Office Report, 1853.

The records at Pensacola (Fort Barrancas) and at Mobile are also characterized by great irregularities, and here a *winter rainy season* is in process of development. The minimum is in August, September, or October, from which point the quantities increase very much in November in every case, remaining large through every winter month. Comparing Baton Rouge, as the central point of this district of profuse winter rains, with the posts of southern Florida, the contrast is at once apparent. Though this belongs more appropriately to the winter distribution, a citation may be made here to illustrate the characteristics of the autumn, in which season these changes first occur.

Stations.	Sept.	Oct.	Nov.	Dec.	Jan.
Key West, Florida	7.79	6.38	1.18	3.13	2.86
Fort Meade, Florida	4.85	1.50	0.56	1.79	1.07
Mt. Vernon Arsenal, Alabama	3.05	3.92	6.18	5.25	6.80
Baton Rouge, Louisiana..........	3.91	2.67	5.90	5.23	5.26
New Orleans, Louisiana*.........	3.51	3.37	3.91	3.78	4.61

* Dr. Barton's Tables and Report from the Sanitary Commission of New Orleans.

The first approach to this dry season in Florida is made in October, and from the minimum, which appears to occur in November, there is a partial resumption of the rains apparent in mid-winter, to be followed by other months of less rain. But as a whole, the winter, from October forward, is a dry season on the peninsula of Florida, and to some extent on the south Atlantic coast. At the west, along the Gulf coast, however, a reverse condition obtains, and a rainy season of the most marked features belongs to the vicinity of the lower Mississippi, apparently reaching up in the interior to Memphis.*

The irregularities in this succession of the months are not sufficient to change the character of this district as one of constant precipitation, however, nor is it rigidly any the less identified with that of equally distributed rains in the general sense in which the term is used. But in Florida a different designation applies, though we are yet unable to say precisely what that designation should be. It appears to be a climate ordinarily of a division into two principal seasons in regard to the rains, the wet summer and the dry winter, yet either may be interrupted by extremes of an opposite character much greater than those occurring in any other known district.

The proportion of the autumnal precipitation which falls in snow is quite large for some part of the northern and eastern United States, and for the mountainous regions of the interior and Pacific coast. Snows occur in rare instances north of 42° of latitude in September; in October they are frequent to this point, and they may reach to the 38th parallel. In November they rarely go much farther south, but they remain upon the ground in the more northern districts, and sometimes as far south as the first named latitude, through much of the winter. The elevated districts near the lakes and toward the Atlantic, as in the highlands of New York and New England, are most abundant in snow; and the quantity of precipitation is maintained in this form through the winter months here, while it appears to fall off, from deficiency of atmospheric moisture, west of the lakes and on the great plains. At Fort Snelling November has only about one-third as much as September, while at Fort Brady there is much less difference, and at Madison Barracks (Sackett's Harbor) and Utica, New York, there is no difference in the quantities.

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* At Vicksburg, for fifteen years, October is the month of least rain and January of the greatest.—(Pub. Tables of A. L. Hatch.) At Huntsville, Alabama, Rev. Dr. Allan's Observations give the same result; as also others at Natchez and Jackson, Mississippi, and those of Professor Hamilton at Nashville, Tennessee.—*Agricultural Patent Office Report*, 1853

There are too few observations to warrant any examination of the quantity of snow in the great mountainous districts of the interior and Pacific slope, and the illustrations of the chart for those districts are approximations only, derived from such observations as exist, and from the best analogies afforded by the configuration.

DISTRIBUTION OF PRECIPITATION IN RAIN AND SNOW FOR THE WINTER.

The general influence of temperature on the quantity of water falling in rain and snow becomes most fully developed in the winter precipitation of the interior, where it is evident that below a certain point of temperature very little moisture remains in the atmosphere, and the quantity falling in rain and snow is very small. The measurements for this interior are too few to give the absolute mean quantities here with precision, but they cannot vary much from those entered on the chart. At Fort Snelling the period is sufficient to give a very reliable result, however, and those at Forts Leavenworth, Kearny, and Laramie cannot be far from true mean quantities. North of this line, on the plains, it is only known that the winter precipitation, in every form, becomes gradually less, and it is thought to be least on the plains of the upper Missouri.

In illustration of this general feature of very little interior precipitation in winter, comparison with the interior districts of Siberia may be made, and on these last the rate of diminution on any line from western Europe is found to be very rapid, and the extreme point of the interior to have very little, if not to be quite destitute of winter precipitation. Such a district of absolute aridity is said to exist there, and in referring to the climatology of the plains of British and Russian America, Richardson cites it, and remarks a possibly parallel case near the Yukon river, at the western limits of British America. It is here, as in Asia, a barren plateau on which no water is found.*

The quantity of snow is small on all the northern prairie slope of the Rocky mountains, and the prairies of the Saskatchewan and upper Missouri, in a line with Fort Union, (of the Missouri,) Fort Pierre, and Fort Kearny, appear to afford the minimum of winter precipitation in every form. The snows are more abundant at the Red River of the North than west of it on the plains, and as the lake district is traversed from the west they steadily increase, with the occasional occurrence of profuse winter rains, to the Atlantic coast. Through all this lake district, with that of the northern Atlantic coast, rains and snows are interspersed through all the winter months, and the changes of temperature are such as sometimes to render these rains as profuse as those of any other season. Winter rains are more rare on the plains, in the same latitudes, though not wholly wanting, except, perhaps, near Lake Superior, on the west and northwest. Here the winter is quite uniform and rigid, and it is characterized by great aridity, as well as by steady low temperature.†

As an associated general feature of the chart the appearance of the greater shadings on the ocean coasts is quite conspicuous in winter, though there is one exception, which has been noticed in comparing the quantities for the autumn, in the diminished quantities in Florida and the south Atlantic States. This winter dry season appears also in lower Texas. The greater quantities on the coasts at this season, afford the only features of identity of the distribution of rain on this part of the continent with that characteristic of Europe, and that which has, hitherto, as in Berghaus' and Johnston's charts, been assigned to this continent from the analogies afforded by better known land areas. It has been seen how largely the distribution for the seasons already illustrated, differed from that based on principles which assign to coasts, and to the nearest mountain ranges, the leading agency in causing precipitation. In previous cases, the Alleghanies more frequently cause deficiency than excess, and now, although the districts near the coast have more rain than the interior, there still appears to be no increase due to the presence of any of the elevations of the Appalachian chain. Upper Virginia contrasts with the Ohio valley, and with the plain at Baltimore and Norfolk, in the same manner as in summer, though not to the same degree. At the first uplifts of the southern extremity of these hills, in Alabama and Mississippi, there may, however, be some increase in the quantity of rain, though we are yet unable to decide the point satisfactorily.

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* "Between the Yukon and Lewis rivers there is a barren plateau which the Indians cross in four days, but on which they find no water;" and in a note its similarity to that in Siberia is remarked, "for it can scarcely be, in so rigorous a climate, that melting snow, if it exists, should not leave pools of water all the summer."—*Richardson's Arctic Expedition.*

† Richardson makes frequent reference to the "dead winter months" at the Hudson's Bay Company's posts of British America, beyond the lake district. At Penetanguishene, Lake Huron, he says: "In December much snow falls. A great fall of snow takes place in February, and there is usually a temporary thaw about the end of the month, accompanied by heavy rain and occasionally by thunder." Of the winter in Minnesota a recent writer says, (Bond's Minnesota and its Resources:) "The most remarkable characteristic of the winter climate of Minnesota is its great dryness—there being an almost total absence of rain and moisture. Not more than one heavy rain storm has occurred within its limits during the last ten years."

The maximum for the eastern United States falls again in the atmospheric basin of the lower Mississippi, and where a partial development of a winter rainy season occurs. In the remarks relating to the autumn precipitation these winter rains and their partial periodicity were noticed. The contrast with Florida and lower Texas which they exhibit is perhaps the most striking peculiarity disclosed by the chart, or by the illustration of the observations. It is difficult to account for these features satisfactorily upon any received principles of winter distribution of atmospheric humidity, unless we suppose these extreme southern points to be more nearly assimilated to tropical districts in regard to rain than they are in temperature. In truth, they lie in the neutral latitudes, which afford the anomalies of Africa and Asia, and which appear to be controlled by the configuration of the districts, and by accidental or anomalous atmospheric movements resulting from peculiar relations of the sea and land areas. The profuse rains and the partial rainy season of winter are extended up the valley of the Mississippi for a considerable distance, and so much as to induce the impression that there is an atmospheric eddy or basin here, in which general circulation ceases, and the conditions most favorable to accumulation of moisture and to profuse precipitation are found. The questions presented by this constant concentration of the areas of maximum precipitation in the basin of the lower Mississippi are worthy a more thorough analysis than can now be made.

Passing to the districts of most profuse winter rain on the Pacific coast, we find the European analogies fully sustained, and results quite similar to those of the west coasts of the British islands and Norway. For the lower latitudes, or in California, the humid atmosphere has considerable elevation, and the rains are not wholly arrested by the lofty chain of the Sierra Nevada, and at the same time they are not extraordinarily profuse at and near the level of the sea. In Oregon they are more low and local, falling very profusely at sea level and on the low coast ranges. No very large quantity remains to be arrested by the range of Rocky mountains, though these are so high as to nearly exhaust the moisture not deposited near the coast, and to receive a large quantity of snow in the whole course of the cold season. At Astoria the quantity of winter rain is much like that of Bergen, in Norway, which at 60° north latitude has a mean of 23.5 inches of rain in winter for a period of ten years. Points of the west coast of Ireland, and of Scotland and parts of England, would not differ largely from these measures. Bergen is considered as the most extremely rainy of European positions in its winter climate, and it is probable that the quantity placed on the chart for our immediate western coast—thirty inches—is too great to be sustained by the results of a period of years. At Sitka the mean of two years is but sixteen inches, and at Steilacoom that of five years is 21.5. The mean for the most exposed points of the coast cannot be less than 25 inches, and this quantity probably belongs to the whole coast, at least as far as Sitka.

In Norway the existence of abrupt mountains near the coast renders the comparison of interior districts similar, and a dry, cold, and unproductive region exists there like much of British America, but in other parts of Europe the humid atmosphere of the coasts reaches far inland, adding largely to the winter precipitation, and softening the climate in regard to temperature in a corresponding degree. None of the Pacific districts afford these advantages here, and thus at all seasons the interior districts of Oregon, with those of the plains of the Columbia, of the Great Basin, and of California, are found to be characterized by like conditions of aridity, and by similar extremes and transitions of temperature. All this chain of basins and plateaux is alike in this respect, and its great area and peculiar position requires a considerable extension of posts of observation to define its climate with the requisite precision for all the purposes of occupation and transit.

The precipitation of the great Rocky mountain ranges in winter can only be stated with a remote approximation. It does not appear that the snows are remarkable for profusion at this season, and the great accumulations found by those who have attempted to traverse the mountains in any part of the cold season do not necessarily imply very deep falls in winter for the general surface. As all the precipitation from October to the close of May is retained on the mountains in the form of snow, the floods of June would be large if the quantity were quite moderate in each month, and the general systems of drainage are not adequate to carry off the measure of rain and snow which falls on the mountains of the New England States. Assuming for the Rocky mountain region a winter precipitation equivalent to five inches in depth of rain, the rule of reduction of snow to water applicable in cold climates, of one inch of water to twelve of snow, would give sixty inches of snow for the winter fall. As most of the precipitation of spring and autumn is also in snow, we may suppose an equal quantity in spring and half this depth in autumn—the whole giving twelve and a half feet of loose snow as falling in the whole cold season on the higher ranges. The quantity can scarcely be greater than this anywhere, and its average is probably less.

The measurement of snows in their depth when first fallen has, unfortunately, received little attention in these military records, while attention to the melting of the quantity and its measurement as water has been, on the whole, very accurately and carefully given. The practical value of a comparison of the mean quantities of loose snow is now very great, since general routes of transit must be controlled by such considerations in forming connections with the Pacific States.*

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* The valuable tables now published regularly for many years in the *American Almanac* afford the best existing averages of the quantity of snow, and some of these results may be given for their general interest.

Positions.		For the winter months only.	For the year.
Worcester, Mass.	12 years' mean depth.	36 inches.	55 inches.
Amherst, "	7 " " "	— "	54 "
Oxford Co., Maine	34 " " "	— "	90 "
Montreal, Canada	10 " " "	— "	67 "
Hartford, Connecticut	24 " " "	— "	43 "
Lambertville, New Jersey	8 " " "	— "	25½ "

MEAN ANNUAL DISTRIBUTION OF PRECIPITATION.

The summary of the quantities for the several seasons in mean quantities for the year, exhibits a more symmetrical distribution of precipitation than belongs to either of the first charts. The results are believed to be less liable to error from imperfection of periods, and from the great range of non-periodic variations, than in the case of periods embracing but a part of the year. This conclusion is based on the assumption that the non-periodic variations in the quantity of water falling in rain do not cover so much time, and that the compensating extremes are more likely to return within the year than to be deferred to subsequent years. It is, however, scarcely possible to decide this point from the existing records, as in several of the more complete series there are years known to possess constant errors of measurement, either in excess or in deficiency.

The general features of symmetry are, first, the great quantities in the lower Mississippi valley and the Gulf States; next the comparatively large quantities and gradual out-shadings of other parts of the Mississippi valley; the uniform measures of the Atlantic coast throughout; and the uniform and decreasing quantities from this district to the higher districts of the whole Alleghany range, and still more to the lake district—which last is also quite uniform throughout. The falling off on the northern portion of the plains is quite abrupt, and not only the very complete series at Fort Snelling so far establishes this point, but such partial records as are obtainable from positions near that post, and the features universally ascribed to the vicinity of Fort Pierre, confirm it. The plains are quite symmetrical in their quantities beyond this point, so far as may be ascertained, and the valley of the lower Rio Grande appears to correspond very well, and to continue this symmetry of the yearly results. Beyond the plains the characteristic features of the districts of periodical rains are strikingly exhibited, and southern Florida gives strong evidence that it should be identified with the districts of periodical rains, rather than with the area of constant precipitation of the eastern United States. There are fewer irregularities in these annual summaries, however, than in the sums for separate seasons, and the possibility of making an illustration of sufficiently precise and practical value would not be doubted in regard to these quantities.

In comparing this illustration with the charts of Berghaus and Johnston, the deficiency on the coasts of the Atlantic and Gulf States is quite apparent. The gradations *increase* toward the interior, instead of *diminishing*, on any parallel from the Atlantic coast toward the Mississippi valley, at least as far north as 43° of latitude, and above this parallel there is but a slight extension of a district of greater precipitation on the Atlantic coast. From the Gulf coast northward there is also a decided increase at some points, and for a moderate distance; as also from the coast at St. Augustine, (Fort Marion,) Florida, northwestward toward the interior of Georgia. The Pacific coast has the analogies heretofore attributed to all temperate climates, but they are there greatly exaggerated in quantity for the northern, and diminished for the southern portions. The prominent deduction derived from this feature giving the greatest quantities in the interior for the eastern United States, and from the uniformity of the quantities over large districts and their extraordinary symmetry, is, that the supply of moisture for precipitation is from remote sources, and that the immediate inducing causes are not found in the configuration of the country. If the altitude of the hills and mountains of this part of the continent has any agency in inducing precipitation, we should find interruptions in the symmetry due to them, and an irregularity conforming to their irregularities of position. This would be more apparent if their effect were supposed to be to increase the amounts, as is generally the case elsewhere, than if they had a negative relation to them, or one tending to diminish the measures. The last is, in truth, to some extent the real relation of the districts having considerable altitude, if not of the sharper elevations and mountains themselves, to the quantity of water falling in the vicinity of the Alleghanies; though such a relation cannot be considered in the same sense as one of increased quantities, since it is merely an interruption of the uniformity which would appear if the whole were a plain.

By comparison of the hyetal with the thermal condition for this area, we may see a similarity which may solve the questions indicated in the contrasts just noted. East of the plains the shadings conform to the curvatures of the thermal lines, and this in a striking manner, if we take the thermal chart for the summer, in which season the excesses principally fall. The higher temperatures then fall inland, even for all the southern coasts; and the great heats of the Mississippi valley, the recession of the lines about the lake district and about the Alleghany mountains, the heat of the interior of southern Florida, and many other points of correspondence, indicate clearly the existence of definite and necessary relations of these two conditions for the district under consideration. *The quantity of water precipitated in rain is proportioned to the temperature, and not to configuration, or to proximity to the sea.*

To this general principle there are partial exceptions, one of which has been mentioned in the extension of the heavy shading on the northern coast of New England. This district, including the highlands and mountains of most parts of the New England States and New York, has more rain than would fall to it by the general rule; and there is some evidence that the contact of atmospheric volumes with those altitudes induces a share of the precipitation, as in Europe and on the Pacific coast. The next exception is in the lower part of the lake district, the vicinity of Lake Ontario in New York. Here the temperature is highest, and the quantity of rain is least for its latitude, except, perhaps, the vicinity of Lake Michigan, on both sides. As the basin of Lake Ontario is some hundreds of feet below the greater part of the lake district, the exception is more apparent than it otherwise would be; and the absence of the greater quantities which should be found there, if the latitudes were lower, shows only that the northern limit of this distinctive district is nearly attained, and that it would not exclusively belong to latitudes as high as 45 degrees. The profuse rains of the St. Lawrence valley and basin, however, still in a great measure confirm the general principle, and associate a large proportion of precipitation with its seasons of highest temperature. A more critical and thorough examination of the northeastern districts in their mutual relations at the various seasons is very desirable.

The district of the great lakes has a general feature of a character perhaps least to be anticipated, in showing a general diminution of the quantity of precipitation in comparison with the districts of its vicinity. That these bodies of water should reduce the annual quantity of rain instead of adding to it may appear improbable, yet, in comparing the results exhibited on the chart for the year, it is demonstrable that they do so. Under the general principle just mentioned the explanation is more simple than might be expected, since it is dependent on the relative capacities of the local atmospheres to sustain moisture, the precipitation being more or less profuse accordingly. If at Cincinnati the mean temperature may be for some days at 85° and at Fort Gratiot at but 60°, with a degree of humidity near saturation in both cases, a change of temperature which would precipitate *like proportions* of this moisture would give twice the depth of rain at the former place. Such, for nearly all parts of the year, are the relative thermal conditions for the atmosphere of this immense cool water surface and that of the Ohio and Mississippi valleys, and the hyetal conditions are only similarly contrasted.

If the quantity of water precipitated at all seasons depended on local sources of supply in the evaporation from ocean or lake surfaces, there should be, notwithstanding the rule just mentioned, a considerable increase on the hills in the vicinity of the lakes in winter or the colder seasons. There is, undoubtedly, a partial or small increase of this sort, which is most conspicuous in New York and in the vicinity of Lake Superior. But the amount so added is due to the greater temperature of the lakes at this season, and to their slower cooling, as their local atmosphere retains a degree of humidity and a capacity for moisture which does not belong to the atmosphere of the land areas in their vicinity. The quantity is also not very great, and it is more conspicuous at the cold season, than important in its addition to the quantity for the year. The number of days of rain and snow is also increased disproportionately to the actual quantity. West of Lake Superior there is, apparently, a heavier fall of snow in winter than elsewhere, or perhaps this profusion belongs to all the hills and low mountains surrounding this great lake, and reaching west to the Red river of the North. The great plains begin at this western limit, and they stretch northwestward to the Saskatchewan and beyond it, the whole country to the Rocky mountains, indeed, being a single low and unbroken plain. Whatever influence moderate elevations would have in this latitude and position in inducing a heavier fall of rain and snow might be anticipated here, and there may be a relatively large quantity so derived. This does not affect the general feature of the lake district which has been examined, as nearly all the country in the vicinity of the other lakes is a plain very little elevated above the lakes themselves.

There is an exceptional district, having a great fall of rain, in Iowa, which requires some explanation, especially in its contrast with the small quantities at Lake Michigan. The exception is in part in the fact that it is cut off from the like measure of fifty inches which belongs to so much of the Mississippi valley, and this is due, apparently, to the elevation of central Missouri in comparison with lower Iowa, and to the near approach of these elevations to St. Louis, in the form of high plains, which are similar to all the elevated semi-plateaux of those States. In Illinois the configuration is somewhat similar, or there are extensive open plains; but in Iowa and northern Missouri there is a district lower than these, which has a high temperature, and which may be designated as a sort of atmospheric eddy, similar to that of the lower Mississippi. In the northwest of Iowa the *coteau* formation appears in its most perfect devolopment, and there are decided features of this sort in central Wisconsin. On these, and on the shore of Lake Michigan, the quantity falls off abruptly, in a manner strikingly like the curvatures of the thermal lines.

The influence of the plains is thus apparently extended eastward at St. Louis, reducing the quantity elsewhere belonging to the Mississippi valley from fifty to forty-five inches in the mean for the year, though the belt so reduced is comparatively narrow, and it does not reach to the southern line of Missouri.

Another instance of the intrusion of the influence of the plains appears at Fort Snelling, and the principles are the same as in the case just examined. The district is more extensive, however, belonging to the whole *coteau* region of the Mississippi and Missouri. The reduction in quantity is very great, and farther west the measure soon falls off to fifteen inches, probably. There are no sufficient measurements for this district, however, and only local descriptions and analogies are relied upon in carrying the illustration beyond the observed points at the military posts. One striking remark is usually made of these prairie reaches, from Fort Pierre to Fort Union, (of the Missouri,) and for much of the remaining distance to Fort Benton, *that they are uncultivable from the absence of summer rain.* It is observed, in an equally decided manner, that the winter rains and snows are of very small amount, and it is clear that with these large deficiencies in the extreme seasons the sum for the year cannot be large. There are some partial records at Fort Benton and Fort Pierre* which fully support this view, and which give, with estimates for some partially omitted months, the measures used in the illustration.

Below this great arid area of the plains there is a belt of more abundant rains, which stretches out on the highlands of Missouri first, and which subsequently comes nearer the Canadian river. Its largest measure is on the Wichita and other mountains of the vicinity of the Canadian river, and at this latitude it appears to approach nearly to the spurs of the Rocky mountains, in their extension eastward from Sante Fé. The positive measurements at Fort Riley and Fort Atkinson, with those at Fort Arbuckle, Las Vegas, and Fort Union, are the only data of this sort yet procured. But the choice of this district as a route for transit to New Mexico, and the general evidence afforded by the rains there encountered, proves it to be comparatively well supplied with rains at a time when other parts of the plains are quite deficient. This is, however, only a comparative statement, and one in reference to other portions near these meridians. All portions differ extremely from the immediate valley of the Mississippi.

In northern Texas another particularly dry plain throws the shadings eastward, but south of this the rougher elevations and low mountains have a larger fall of rain, which belongs in some degree to the mountains farther up the Rio Grande. The lower valley of the Rio Grande is again extremely dry, except just on the coast of the Gulf, and southward from this point it is only known that the rains are much more profuse until the high interior of Mexico is attained. The last dry district named is, therefore, the most southern point to which this deficiency falls for districts having the general elevation of the United States.

As the large measures of rain for the eastern United States appear to be so directly associated with the temperature, the explanation of the diminution on the immediate coasts is not difficult. On the summer thermal chart the line of 80° is seen to follow the Gulf coast throughout, while 82° and 85° appear at large areas of the interior. The temperature does not rise so high within reach of the sea breezes, nor is the degree or fraction of saturation so great. By those who are familiar with the climate of the coasts this has long been understood, and the removal of troops to the most exposed coast positions, to avoid the unhealthiness of the high temperature and more excessive saturation of partially interior posts, has been practiced for many years. The rains are less profuse for even slight differences of this sort, and we need look no farther for the explanation of the differences of the records. On the south Atlantic coast this result is perhaps more marked than elsewhere, though the record at Fort Marion is not relied upon as entirely accurate. But the contrast of Fort Moultrie and Oglethorpe Barracks, and that of Sea islands near Savannah with the city itself, affords decisive comparisons.† Farther north the exposed coast positions show a diminution evidently due to this local cause, and the farther these are at sea, or the more fully exposed to such influences, the greater is the difference of measurements disclosed. Near the Gulf stream the conditions may be reversed, however, as the temperature is considerably greater there.

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* Report of Survey of Northern Pacific Railroad Route, by Governor Stevens.

† At Whitemarsh Island, coast of Georgia, the mean fall of rain for $4\frac{1}{2}$ years is 39 inches, while the mean at Savannah is 50 inches; at Camden, S. C., 54.4 inches; at Sparta, Ga., 51.7 inches, &c.—(Climatology of Agl. Rep. Patent Office, 1853.) Similar differences are presented on comparison, at points further northward, of coast positions with those without coast exposure.

In Florida the illustration for the year must be taken as in some degree hypothetical. At Key West the quantity is certainly comparatively small, though the records there differ very much from different sources and for different years. An apparently reliable record by W. A. Whitehead, esq., gives nearly thirty-two inches for a mean of fourteen years, though some part of this period was taken from other sources. The record at the military post differs largely from this, and in part this difference is due to greater profusion of rains, yet the result may not be wholly relied upon. A mean of these, or thirty-six inches, is thought to be near the average which an extended period would give, and this is confirmed by partial results on other islands.* But in the interior of the lower part of the peninsula the local rains are most excessive, and the local humidity and high temperature sufficiently extreme to render the measurement of the large quantities there free from doubt. Posts on opposite coasts of the peninsula there usually agree in the cases of greater profusion. The non-periodic range is, however, very great for every portion of Florida, and more complete periods are required to give reliable measures.

The annual mean results, in the districts of periodical rains, have less interest and importance as such, than in those where the whole year is similar, or is a period of continued precipitation. The interest belongs to the seasons in the first case, and not so much, perhaps, to the recognized or standard divisions as such, as to the wet and dry seasons of these districts, whatever periods of time they may embrace. There is a great area very deficient in atmospheric precipitation, which stretches from the Rocky mountains to the great coast ranges, and from the point where the two ranges merge in one in British America, south to near the latitude of the city of Mexico. Though both these great mountain systems are broken down in the vicinity of the 32d parallel, they rise again in Mexico, the coast range at the east arresting the tropical rains from one ocean, and that at the west from the other.† Within the limits of the United States this great arid region may be said to embrace ten degrees of longitude and seventeen of latitude, drained only by the Columbia and Great Colorado rivers in any outlet to the sea. Fully half of it is the Great Basin of the interior, which does not receive a sufficient quantity of rain to require any external drainage. Taking this basin at nearly eight degrees of latitude by seven of longitude, we have two hundred thousand square miles so deficient in rain as to send out no rivers, and to accumulate no considerable lakes, and this statement places the contrast with the eastern United States in the clearest light. The two great rivers of the whole arid district receive most of their volume from the mountains themselves, and beyond its proper limits, and their basins might appropriately be added to the calculation, making nearly four hundred thousand square miles of surface, which, of itself, would send no rivers to the sea. In the division of river or hydrographic systems this deserves a distinct place, and its basis is in the permanent hyetal condition, which may or may not here be wholly dependent on altitude and configuration.

The summary for the Pacific coast presents no features not apparent, in some degree, in the summaries for the seasons. It is to be regretted that the period of time is not longer for the upper part of this coast, and that the facilities for connecting the illustration still further northward are not at hand. Beyond Astoria and Steilacoom we have only two years of observation at Sitka, from Russian authorities, with a mean of 79.5 inches for the year. Without much probability of error we may suppose the quantity at Astoria continued, with a less rapid increase than before reaching this point, to Sitka, and the whole of this immediate coast to be marked by great profusion. Richardson notices its extreme humidity, and considers its degree greater than that of the most humid coasts of the British islands.

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* American Almanac.

† The topographical notation of the mountains of Mexico is not attempted to be made with accuracy on the chart, and the illustration of the quantity of rain there is attempted only for one or two seasons.

The periods of observation at the older military posts are sufficient only to open the question of permanence in regard to the quantity of rain falling in an extended series of years. If this condition is directly and necessarily associated with the temperature, the permanence of that gives strong evidence, at least, that there is no change in progress in regard to the quantity of rain. It has been seen that no evidence of periodicity or of progressive movement in any direction is apparent in the temperature records, but as positive observation would be decisive against any form of inference whatever, a brief reference to the annual summaries of the longer series may be made.

The posts of the New England States show some uniformity previous to 1850; the best series, at Hancock Barracks, does so particularly. In 1850 to 1853 the quantities are greater than before, and comparison with records from other sources, going farther back than any of these,* establish the correctness of this increase for those years; the excess was principally in southern New England and New York. At Fort Columbus the most complete of the northern series occurs, and the excess here in 1837 and 1847 is generally supported at other posts, and by records from other sources in the vicinity. That of 1837 was observed at Fort Wood, New York harbor, and it has some appearance of being over measured. The complete mean of this post agrees strikingly with that at other points of the vicinity, including extensive periods at academies on Long Island. At West Point the greatest difficulty or anomaly is presented, and comparison of its measurements for the earlier years with those of the Academies at Hudson, Poughkeepsie, Newburgh, New York, and Albany; with indeed several other points of the Hudson river valley, induces the opinion that local influences in regard to the position of the gauge, or error in use of the scale, render the measurements for the years referred to decidedly in excess. The quantities for 1837–8 and 9 are unprecedented, and all for first six or seven years are nearly twice as great as the measurements at the points above enumerated. There are, evidently, local causes of profuse precipitation here which do not exist in this valley generally, and this is sufficiently clear from the last twelve years of the record, which bear a uniform relation to other like periods. But the great decrease in quantity from the mean of the first six years is not shown in any other case, and it can scarcely be supposed that this single locality is exceptional in this respect in so great a degree. The highlands of southern New York and New England at some points show as much deficiency as the excess here admitted, or the difference of four inches in the annual mean from the measures at other points of the vicinity.

At Watervliet there is evidently an under measurement of winter precipitation, and the locality may have the effect to still further diminish the quantity as compared with Albany. The mean of forty inches at this latter point is no doubt entirely reliable as a representative of the general district. The uniformity of the results at Watervliet arsenal for successive years belongs to the records at Albany, Troy, and other points of the vicinity, and no evidence of the change occurring at West Point exists in any case.

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* Observations at the New York academies, in Reports of New York University, Am. Almanac, Hist. Vermont, &c.

The series at Alleghany arsenal is also strong evidence that all the variations in quantity are non-periodic, and similar to those of temperature. The range appears to be no greater here than at New York, and in both cases it is nearly as much as the least quantity which has fallen in any year. At Fort McHenry, Baltimore, a very good series exists with similar features. Some unimportant correction is supposed to belong to the last two years, but these do not affect this position. At Fort Monroe, Norfolk, a large range occurs, and though the range here is probably greater, as shown by the analogies of the temperature range, the extreme quantities are somewhat doubtful—1839 and 1840 on the one side, and 1852 and 1854 on the other. If their accuracy is confirmed, as it may be by further examination, the range is certainly very extraordinary. As this district of central position north and south is still incomplete in regard to observation, separate summaries at this post are made for the purpose of illustrating the probable determinations, or those resulting in any case, whether the apparently exceptionable quantities are or are not retained. It is clear that the range on this slope of the Alleghanies is very great, and that partial periods are quite inadequate to determine the mean annual fall. It amounts to two and a half times the least observed quantity at Fort Monroe, if the extreme years are not included.

Similar features of great range belong to all the central districts of the United States, including the older posts west of the Mississippi. All the districts having a great mean annual quantity are so characterized, and the range is greatest where the thermal variation is greatest. At Fort Leavenworth the lowest quantity is less than one-third of the greatest, while at the posts of the western lake district the range is very much less.

The measurement of the quantity of rain has inherent difficulties not readily understood or apparent, except in the actual trial, arising from accidental interruptions or defects of exposure, alterations in the shape of the gauge by freezing, and in the use of the scale, &c.; but the averages derived from long periods are seen to be reliable for all general conclusions, particularly when the quantities for all the posts of an extensive district are placed together in their natural geographical relations.

NOTES AND ERRATA.

In some of the signatures of the statistical portions of this volume errors of computation were introduced, which the subsequent roduction of the results in the summary tables served to detect. The successive forms in which the statistics were recombined and cussed each served as a criticism on computations and determinations as well as on typographical accuracy. It will be observed t many errata are secondary; that is, one primary error of computation or of printing is reproduced in all the results into which e original item enters. The corrections are introduced in the order in which the primary errors occur.

Page ix. With this page ends the "Directions for taking Meteorological Observations;" the remainder of the introduction uld have been more distinctly separated in the form.
Page 12. Mean temperature at Fort Brady, 9 a. m., for 4.30, read 14.30.
Page 46. Monthly mean temperature at Fort Towson, for 56.40, read 45.65.
Page 46. Monthly range of maximum above mean, for 7.6, read 18.4.
Page 46. Monthly range of minimum below mean, for 34.4, read 23.6.
Page 50, 108. Longitude of Watertown Arsenal, for 72.17, read 71.09.
Page 51. Temperature at Fort Towson for December, for 56.40, read 45.65.*
Page 56. Weather summary at New Orleans should be noted as including Pass Christian.
Page 60, 108. Mean temperature of January at Fort Macon, for 44.08, read 43.06.
Page 110. Longitude of Fort Atkinson, for 91°, read 92°.
Page 150. Monthly mean temperature at Fort Columbus, for 62.81, read 55.31.*
Page 188, 286, 342, 400, 458, 516. Altitude of Fort Gibson, for 842, read 542.
Page 208. Minimum temperature at Fort Gibson, for 37, read 57.
Page 219. Minimum temperature at Fort Washita for year, for 56.38, read 58.87.
Page 219. Mean temperature at St. Louis Arsenal for the year, for 50.45, read 52.95.
Page 240. Minimum temperature at Fort Monroe, for 40, read 50.*
Page 240. Minimum temperature at Fort Gibson, for 30, read 44.*
Page 244. Mean temperature at Fort Moultrie at sunrise, for 41.13, read 48.53.
Page 244. Mean temperature at Fort Moultrie for the month, for 50.20, read 52.05.
Page 248. Mean temperature at Fort Brady for January, for 85.53, read 18.53.
Page 248. Mean temperature at Fort Gibson for September. Note. *For the last* 17 *days.*
Page 249. Mean temperature at Fort Scott for summer, for 77.91, read 74.58.
Page 249. Mean temperature at Fort Scott for year, for 54.73, read 53.90.
Page 286, 292. For Kearney, read Kearny.
Page 287. Mean temperature at Fort Washita for summer, for 78.92, read 77.92.*
Page 287. Mean temperature at St. Louis Arsenal for summer, for 45.14, read 75.14.
Page 287. Mean temperature at St. Louis Arsenal for autumn, for 65.31, read 55.31.
Page 287. Mean temperature at St. Louis Arsenal for year, for 55.63, read 53.13.*
Page 287. Mean temperature at Newport Barracks for autumn, for 67.72, read 57.72.
Page 287. Mean temperature at Newport Barracks for year, for 57.76, read 55.27.
Page 289. Mean temperature at Fort McIntosh for November, for 60.11, read 66.11.
Page 289. Mean temperature at Fort Inge for October, for 62.20, read 66.20.
Page 289. Mean temperature at Fort Inge for November, for 69.22, read 60.22.
Page 309. Quantity of rain at Las Vegas, for 00.2, read 0.02.
Page 342. Mean temperature for January at Fort Brooke. Note. *Inaccurate.*
Page 342. Longitude of Mount Vernon Arsenal, for 88.20, read 88.02.
Page 344. Longitude of Fort McIntosh, for 97.27, read 99.27.
Page 344. Longitude of El Paso, for 106.38, read 106.28.
Page 344. Longitude of Camp Far West, for 120.18, read 121.18.
Page 380. For Baton Rouge Arsenal, read Baton Rouge Barracks.
Page 400. Longitude of Fort Washington, for 77.03, read 77.06.

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* The measures of range, and the mean temperatures into which these numbers enter, require corresponding correction.

NOTES AND ERRATA.

Page 400. Mean temperature for August at Fort Meade, for 81.57, read 80.82.
Page 400. Mean temperature for August at Fort Barrancas, for 79.22, read 81.37.
Page 400. Mean temperature for August at Mount Vernon Arsenal, for 84.05, read 79.22.
Page 400. Mean temperature for August at East Pascagoula, for 80.19, read 84.05.
Page 401. Fort Independence, for Governor's Island, read Castle Island.
Page 422. Title of page, for 1851, read 1852.
Page 442. Watervliet Arsenal. Note. *Temperatures inaccurate.*
Page 458, 516. Latitude of Fort Mifflin, for 30.53, read 39.53.
Page 460, 518. Longitude of Fort Inge, for 99.09, read 99.49.
Page 460. Mean temperature of January at San Diego, for 5.307, read 53.07.
Page 461. Mean temperature at Fort Duncan for winter, for 77.80, read 74.60.*
Page 508. Mean temperature at Fort Merrill, 9 p. m., for 67.18, read 64.26.
Page 516. Longitude of Alleghany Arsenal, for 80.12, read 80.02.
Page 517. Locality of Fort Smyrna, for Mosquito bay, read Mosquito Bar.
Page 517. Mean temperature of Fort Brooke for spring, for 63.92, read 73.92.
Page 517. Mean temperature of Fort Brooke for year, for 70.38, read 72.88.
Page 519. Head of page, for 1851, read 1853.
Page 519. Maximum temperature at Fort Yuma, for 121, read 116.
Page 519. Maximum temperature at Fort Miller, for 118, read 121.
Page 528. For Burgoine, read Burgwin.
Page 548. Temperatures at Fort Vancouver. Note. *Temperatures inaccurate?*
Page 575. Maximum temperature at Ringgold Barracks, for 100, read 103.
Page 575. Maximum temperature at Fort McIntosh, for 102, read 104.
Page 577. Temperatures at Columbia Barracks, for October and November. Note. *Inaccurate.*
Page 578. Quantity of rain at St. Louis Arsenal for autumn, for 5.70, read 5.80.*
Page 578. Quantity of rain at Fort Arbuckle for autumn, for 7.23, read 6.13.*
Page 579. Quantity of rain at Fort Brown for spring, for 6.30, read 5.30.
Page 579. Quantity of rain at Fort Brown for year, for 34.27, read 50.60.
Page 579. Quantity of rain at Fort Fillmore for year, for 23.85, read 6.07.
Page 579. Quantity of rain at Albuquerque for spring, for 3.00, read 2.01.*
Page 579. Quantity of rain at Santa Fé for spring, for 5.85, read 4.85.*
Page 579. Quantity of rain at Fort Massachusetts for spring and autumn. Note. *Incomplete.*
Page 579. Quantity of rain at Fort Jones for January. Note. *First* 15 *days.*
Page 579. Quantity of rain at Fort Jones for February, for 1.00, read 2.62; for winter, read 4.29; for year, read 13.00.
Page 592. Position of Laguna, for Engineer, read Engineers.
Page 598. Latitude of Watertown Arsenal, for 41.21, read 42.21.
Page 600. Mean temperature at Fort Columbus in 1822, spring, for 32.62, read 52.62.*
Page 600. Mean temperature at Fort Columbus in 1837, October, for 59.22, read 52.92.*
Page 600. Mean temperature at Fort Columbus in 1845, October, for 62.81, read 55.31.*
Page 601. Summary mean temperatures at Fort Hamilton, April, for 44.29, read 47.62.*
Page 602. Mean temperatures at Watervliet Arsenal, September, 1852, for 70.40, read 61.78.
Page 604. Summary at Fort Ontario, mean temperature for November, for 43.43, read 37.97.*
Page 605. Errors of the original record of temperature are noted in the spring months of 1836 and 1837 at Alleghany Arsenal.
Page 608. Fort Monroe, the temperatures of 1832 are evidently in error for most of the year in the original record.
Page 609. Fort Monroe, mean temperature of January in the summary, for 36.54, read 40.54.*
Page 611. Fort Moultrie, mean temperature of August, 1842, for 71.15, read 75.71.*
Page 611. Fort Moultrie, mean temperature of November, 1848, for 50.20, read 52.05.
Page 611. Fort Moultrie, mean temperature of January, 1854, for 40.83, read 50.83.
Page 611. Fort Moultrie, mean temperature of summary for January, for 50.36, read 50.73.*
Page 612. Fort Marion, mean temperature for 1838, transpose the numbers for October and November.
Page 612. Fort Marion, mean temperature for June, 1842, for 79.73, read 77.52.
Page 612. Fort Marion, mean temperature summary for October, for 71.88, read 72.42.
Page 612. Fort Marion, mean temperature summary for November, for 64.12, read 63.58.
Page 613. New Smyrna, mean temperature summary for autumn, for 62.43, read 72.43.*
Page 614. Key West, mean temperature for February, 1838, for 52.25, read 68.30.*
Page 615. Fort Brooke, mean temperature for April, 1841, for 61.46, read 72.12.*
Page 615. Fort Brooke, mean temperature for September, 1841, for 52.85, read 78.95.*
Page 615. Fort Brooke, mean temperature for March, 1842, for 77.02, read 72.10.
Page 615. Fort Brooke, mean temperature for spring, 1853, for 63.92, read 73.92.*
Page 618. Fort Morgan, mean temperature summary for spring, for 64.35, read 64.81.
Page 619. New Orleans, mean temperatures for months of 1825, and for the first three months of 1835, inaccurate.
Page 620. New Orleans, mean temperature for March, 1843, for 62.03, read 52.03.
Page 621. Fort Jesup, mean temperature for April, 1839, for 60.59, read 70.59.

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* The summaries into which these numbers enter require corresponding correction.